



Docket No.: CL000891
Serial No.: 09/804,474
Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

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1 GTCTCGTGTA TGGCGTGGTT AAGGTTGCAG CCTCTCACCT CTGCCTTCCT
51 CCATTTTGGG CTGGTTACCT TTGTGCTCTT CCTGAATGGT CTTTCGAGCAG
101 AGGCTGGTGG CTCAGGGGAC GTGCCAAGCA CAGGGCAGAA CAATGAGTCC
151 TGTTCAGGGT CATCGGACTG CAAGGAGGGT GTCATCCTGC CAATCTGGTA
201 CCCGGAGAAC CCTTCCCTTG GGGACAAGAT TGCCAGGGTC ATTGTCTATT
251 TTGTGGCCCT GATATACATG TTCTTGGGGT TGTCATCAT TGCTGACCGC
301 TTCATGGCAT CTATTGAAGT CATCACCTCT CAAGAGAGGG AGGTGACAAT
351 TAAGAAACCC AATGGAGAAA CCAGCACAAC CACTATTTCG GTCTGGAATG
401 AAAGTGTCTC CAACCTGACC CTTATGGCCC TGGGTTCTCT TGCTCTGAG
451 ATACTGCTCT CTTTAATTGA GGTGTGTGGT CATGGGTTCA TTGCTGGTGA
501 TCTGGGACCT TCTACCATTG TAGGGAGTGC AGCCTTCAAC ATGTTTCATCA
551 TCATTGGCAT CTGTGTCTAC GTGATCCCAG ACGAGAGAGC TCACAAGATC
601 AAGCATCTAC GAGTCTTCTT CATCACCGCT GCTTGGAGTA TCTTTGCCTA
651 CATCTGCTCT TATATGATTG TGGCAGTCTT CTCCCTGGT GTGGTCCAGG
701 TTTGGGAAGG CCTCTCACT CTCTTCTTCT TTCCAGTGTG TGCTCTCTG
751 GCCTGGGTGG CAGATAAACG ACTGCTCTT TACAAATACA TGCACAAAAA
801 GTACCGCACA GACAAACACC GAGGAATTAT CATAGAGACA GAGGGTGACC
851 ACCCTAAGGG CATTGAGATG GATGGGAAA TGATGAATTC CCATTTTCTA
901 GATGGGAACC TGGTGCCCTT GGAAGGGAAG GAAGTGGATG AGTCCCGCAG
951 AGAGATGATC CGGATCCTCA AGGATCTGAA GCAAAAACAC CCAGAGAAGG
1001 ACTTAGATCA GCTGGTGGAG ATGGCCAATT ACTATGCTCT TTTCCACCAA
1051 CAGAAGAGCA GCGCCTTCTA CCGTATCCAA GCCACTCGTA TGATGACTGG
1101 TGCAGGCAAT ATCCTGAAGA AACATGCAGC AGAACAAGCC AAGAAGGCC
1151 CCAGCATGAG CGAGGTGCAC ACCGATGAGC CTGAGGACTT TATTTCCAA
1201 GTCTTCTTTG ACCCATGTTT TTACCACTGC CTGGAGAACT GTGGGGCTGT
1251 ATCTCTGACA GTGGTGAGGA AAGGGGAGA CATGTCAAAG ACCATGTATG
1301 TGGACTACAA AACAGAGGAT GGTCTTGCCA ATGCAGGGGC TGACTATGAG
1351 TTCACAGAGG GCACGGTGGT TCTGAAGCCA GGAGAGACCC AGAAGGAGTT
1401 CTCCGTGGGC ATAATGATG ACGACATTTT TGAGGAGGAT GAACACTTCT
1451 TTGTAAGGTT GAGCAATGTC CGCATAGAGG AGGAGCAGCC AGAGGAGGGG
1501 ATGCCTCCAG CAATATTCAA CAGTCTTCCC TTGCCTCGGG CTGCTCTAGC
1551 CTCCCTTGT GTGGCCACAG TTACCATCTT GGATGATGAC CATGCAGGCA
1601 TCTTCACTTT TGAATGTGAT ACTATTCATG TCAGTGAGAG TATTTGGTGT
1651 ATGGAGGTCA AGTTCTGCG GACATCAGGT GCCCGGGGTA CAGTCATCGT
1701 CCCCTTTAGG ACAGTAGAAG GGACAGCCAA GGGTGGCGGT GAGGACTTTG
1751 AAGACACATA TGGGGAGTTG GAATTCAAGA ATGATGAAAC TGTGAAAACC
1801 ATAAGGGTTA AAATAGTAGA TGAGGAGGAA TACGAAAGGC AAGAGAAATT
1851 CTTTATTGCC CTTGGTGAAC CGAAATGGAT GGAACGTGGA ATATCAGATG
1901 TGACAGACAG GAAGCTGACT ATGGAAGAAG AGGAGGCCAA GAGGATAGCA
1951 GAGATGGGAA AGCCAGTATT GGGTGAACAC CCCAACTGG AAGTCATCAT
2001 TGAAGAGTCC TATGAGTTCA AGACTACGGT GGACAACTG ATCAAGAAGA
2051 CAAACCTGGC CTTGGTTGTG GGGACCCATT CCTGGAGGGA CCAGTTCATG
2101 GAGGCCATCA CCGTCAGTGC AGCAGGGGAT GAGGATGAGG ATGAATCCGG
2151 GGAGGAGAGG CTGCCCTCCT GCTTTGACTA CGTCATGCAC TTCCTGACTG
2201 TCTTCTGGAA GGTGCTGTTT GCCTGTGTGC CCCCACAGA GTACTGCCAC
2251 GGCTGGGCCCT GCTTCGCCGT CTCCATCCTC ATCATTGGCA TGCTCACC
2301 CATCATTTGG GACCTGGCCT CGCACTTCGG CTGCACCAT GGTCTCAAAG
2351 ATTTCGGTCA AGCTGTTGTT TTCGTGGCAT TTGGCACCTC TGTCCAGAT
2401 ACGTTTGCCA GCAAAGCTGC TGCCCTCCAG GATGTATATG CAGACGCCTC
2451 CATTTGGCAAC GTGACGGGCA GCAACGCCGT CAATGTCTTC CTGGGCATCG
2501 GCCTGGCCTG GTCCGTGGCC GCCATCTACT GGGCTCTGCA GGGACAGGAG
2551 TTCCACGTGT CGGCCGGCAC ACTGGCCTTC TCCGTCACCC TCTTCACCAT
2601 CTTTGCATTT GTCTGCATCA GCGTGCTCTT GTACCGAAGG CGGCCGCACC
2651 TGGGAGGGGA GCTTGGTGGC CCCCGTGGCT GCAAGCTCGC CACAACATGG
2701 CTCTTTGTGA GCCTGTGGCT CCTCTACATA CTCTTTGCCA CACTAGAGGC
2751 CTATTGCTAC ATCAAGGGGT TCTAAGCCAC AC
(SEQ ID NO: 1)
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5'UTR: 1 - 9
Start Codon: 10
Stop Codon: 2773
3'UTR: 2776

FIGURE 1A



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HOMOLOGOUS PROTEINS:

Top 10 BLAST Hits:

Sequences producing significant alignments:	Score (bits)	E Value
CRA 18000005047237 /altid=gi 2498054 /def=sp P70549 NAC3_RAT SO...	1828	0.0
CRA 18000005200270 /altid=gi 4140706 /def=gb AAD04173.1 (AF107...	1342	0.0
CRA 1000682343796 /altid=gi 6453729 /def=gb AAF08988.1 AF108389...	1338	0.0
CRA 18000004939788 /altid=gi 1083801 /def=pir S43730 Na+/Ca2+-...	1335	0.0
CRA 18000005028314 /altid=gi 1279782 /def=gb AAA97928.1 (U5266...	1334	0.0
CRA 18000004968774 /altid=gi 382752 /def=prf 1901175A Na/Ca ex...	1333	0.0
CRA 18000004882912 /altid=gi 627801 /def=pir B53335 Na+/Ca2+-e...	1331	0.0
CRA 18000005218648 /altid=gi 4566522 /def=gb AAD23386.1 AF10916...	1330	0.0
CRA 18000005218651 /altid=gi 4566528 /def=gb AAD23389.1 AF10916...	1329	0.0
CRA 18000004907324 /altid=gi 479177 /def=pir S32435 Na+/Ca2+-e...	1328	0.0

dbEST:

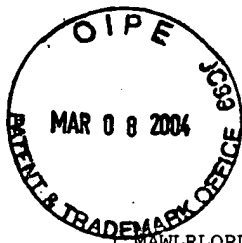
Sequences producing significant alignments:	Score (bits)	E Value
gi 11600765 /dataset=dbest /taxon=96...	500	e-138
gi 318815 /dataset=dbest /taxon=9606 /...	216	2e-53

EXPRESSION INFORMATION FOR MODULATORY USE:

gi|11600765 Pooled (Brain, Heart, Kidney, Lung, Spleen, Testis, Leukocyte)
gi|318815 Fetal brain

Tissue expression:

Pooled tissues (Brain, Heart, Kidney, Lung, Spleen, Testis, Leukocyte)



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1 MAWLRLQPLT SAFLHFGGLVT FVLFLNGLRA EAGGSGDVPS TGQNNESCSG
51 SSDCKEGVIL PIWYPENPSL GDKIARVIVY FVALIYMFLG VSIIADRFMA
101 SIEVITSQER EVTIKKPNGE TSTTTIRVWN ETVSNLTLMA LGSSAPEILL
151 SLIEVCGHGF IAGDLGPSTI VGSAAFNMFI IIGICVYVIP DGETRIKIKHL
201 RVFFITAAWS IFAYIWLYMI LAVFSPGVVQ VWEGLLTLLFF FPVCVLLAWV
251 ADKRLLFYKY MHKKYRTDKH RGIIETEGD HPKGIEMDGK MMNSHFLDGN
301 LVPLEGKEVD ESRREMIRIL KDLKQKHPEK DLDQLVEMAN YYALSHQQKS
351 RAFYRIQATR MMTGAGNLIK KHAAEQAKKA SSMSEVHTDE PEDFISKVFF
401 DPCSYQCLEN CGAVLLTVVR KGGDMSKTMV VDYKTEDGSA NAGADYEFTE
451 KTVVLKPGET QKEFSVGIIID DDIFEDEHF FVRLSNVRIE EEQPEEGMPP
501 AIFNSLPLPR AVLASPCVAT VTILDDDHAG IFTFECDTIH VSESIGVMEV
551 KVLRTSGARG TVVVPFRTVE GTAKGGGEDF EDTYGELEFK NDETVKTIRV
601 KIVDEEEYER QENFFIALGE PKWMERGISD VTDKRLTMEE EEAERIAEMG
651 KPVLGHPKL EVIIEESYEF KTTVDKLIKK TNLALVVGTH SWRDQFMEAI
701 TVSAAGDEDE DESGEERLPS CFDYVMHFLT VFWKVLFAV PPTEYCHGWA
751 CFAVSILLIIG MLTAIIGDLA SHFGCTIGLK DSVTAVVFVA FGTSVPDTFA
801 SKAAALQDVY ADASIGNVTG SNAVNVFLGI GLAWSVAAY WALQGQEFHV
851 SAGTLAFSVT LFTTIFAFVCI SVLLYRRRPH LGGELGGPRG CKLATTWLFV
901 SLWLLYLFA TLEAYCYIKG F
(SEQ ID NO:2)

FEATURES:

Functional domains and key regions:

[1] PDOC00001 PS00001 ASN_GLYCOSYLATION
N-glycosylation site

Number of matches: 4

1	45-48	NESC
2	130-133	NETV
3	135-138	NLTL
4	817-820	NVTG

[2] PDOC00004 PS00004 CAMP_PHOSPHO_SITE
cAMP- and cGMP-dependent protein kinase phosphorylation site

Number of matches: 2

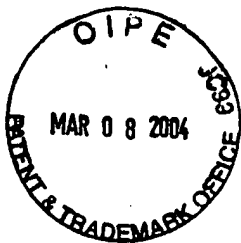
1	378-381	KKAS
2	634-637	RKLT

[3] PDOC00005 PS00005 PKC_PHOSPHO_SITE
Protein kinase C phosphorylation site

Number of matches: 11

1	113-115	TIK
2	125-127	TIR
3	597-599	TIR
4	194-196	TRK
5	267-269	TDK
6	312-314	SRR
7	460-462	TQK
8	572-574	TAK
9	594-596	TVK
10	125-127	TIR
11	597-599	TIR

FIGURE 2A



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[4] PDOC00006 PS00006 CK2_PHOSPHO_SITE
Casein kinase II phosphorylation site

Number of matches: 16

1	69-72	SLGD
2	106-109	TSQE
3	144-147	SAPE
4	151-154	SLIE
5	277-280	TEGD
6	312-315	SRRE
7	382-385	SMSE
8	460-463	TQKE
9	522-525	TILD
10	583-586	TYGE
11	637-640	TMEE
12	672-675	TTVD
13	691-694	SWRD
14	713-716	SGEE
15	720-723	SCFD
16	794-797	SVPD

[5] PDOC00007 PS00007 TYR_PHOSPHO_SITE
Tyrosine kinase phosphorylation site

Number of matches: 2

1	397-405	KVFFDPCSY
2	601-608	KIVDEEEY

[6] PDOC00008 PS00008 MYRISTYL
N-myristoylation site

Number of matches: 15

1	50-55	GSSDCK
2	422-427	GGDMSK
3	438-443	GSANAG
4	497-502	GMPPAI
5	557-562	GARGTV
6	571-576	GTAKGG
7	760-765	GMLTAI
8	774-779	GCTIGL
9	778-783	GLKDSV
10	816-821	GNVTGS
11	829-834	GIGLAW
12	831-836	GLAWSV
13	882-887	GGELGG
14	886-891	GGPRGC
15	890-895	GCKLAT

Membrane spanning structure and domains:

Helix	Begin	End	Score	Certainty
1	8	28	1.905	Certain
2	76	96	2.032	Certain
3	133	153	1.009	Certain
4	169	189	1.943	Certain
5	206	226	2.118	Certain
6	231	251	2.072	Certain
7	505	525	0.666	Putative
8	723	743	1.298	Certain
9	747	767	2.258	Certain
10	781	801	1.232	Certain
11	823	843	1.793	Certain
12	854	874	2.424	Certain
13	893	913	2.138	Certain

FIGURE 2B



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BLAST Alignment to Top Hit:

>CRA|18000005047237 /altid=gi|2498054 /def=sp|P70549|NAC3_RAT
SODIUM/CALCIUM EXCHANGER 3 PRECURSOR (NA+/CA2+-EXCHANGE
PROTEIN 3) /org=NA+/CA2+-EXCHANGE PROTEIN 3 /dataset=nraa
/length=927
Length = 927

Score = 1828 bits (4682), Expect = 0.0
Identities = 897/927 (96%), Positives = 911/927 (97%), Gaps = 6/927 (0%)
Frame = +1

Query: 10 MAWLRLQPLTSAFLHFGLVTFVLFLNGLRAEAGSGDVPSTGQNNESCSGSSDCKEGVIL 189
MAWLRLQPLTSAFLHFGLVTFVLFLNGLRAEAG DVPS GQNNESCSGSSDCKEGVIL
Sbjct: 1 MAWLRLQPLTSAFLHFGLVTFVLFLNGLRAEAGDLRDVPSAGQNNESCSGSSDCKEGVIL 60

Query: 190 PIWYPENPSLGDKIARVIVYFVALIYMFLGVSIIADRFMASIEVITSQEREVTIKKPNGE 369
PIWYPENPSLGDKIARVIVYFVALIYMFLGVSIIADRFMASIEVITSQEREVTIKKPNGE
Sbjct: 61 PIWYPENPSLGDKIARVIVYFVALIYMFLGVSIIADRFMASIEVITSQEREVTIKKPNGE 120

Query: 370 TSTTTIRVWNETVSNLTLMALGSSAPEILLSLIEVCGHGFIAGDLGPSTIVGSAAFNMFI 549
TSTTTIRVWNETVSNLTLMALGSSAPEILLSLIEVCGHGFIAGDLGPSTIVGSAAFNMFI
Sbjct: 121 TSTTTIRVWNETVSNLTLMALGSSAPEILLSLIEVCGHGFIAGDLGPSTIVGSAAFNMFI 180

Query: 550 IIGICVYVIPDGETRRIKHLRVFFITAAWSIFAYIWLYMILAVFSPGVVQVWEGLLTLFF 729
IIGICVYVIPDGETRRIKHLRVFF+TAAWS+FAYIWLYMILAVFSPGVVQVWEGLLTLFF
Sbjct: 181 IIGICVYVIPDGETRRIKHLRVFFVTAAWSVFAYIWLYMILAVFSPGVVQVWEGLLTLFF 240

Query: 730 FPVCVLLAWVADKRLLFYKYMHKRYRTDKHRGIIIETEGDHPKGIEMDGKMMNSHFLDGN 909
FPVCVLLAWVADKRLLFYKYMHK+YRTDKHRGIIIETEG+HPKGIEMDGKMMNSHFLDGN
Sbjct: 241 FPVCVLLAWVADKRLLFYKYMHKRYRTDKHRGIIIETEGEHPKGIEMDGKMMNSHFLDGN 300

Query: 910 LVPLEGKEVDESREIRILKDLKQKHPEKDLDQLVEMANYALSHQQKSAFYRIQATR 1089
L+PLEGKEVDESREIRILKDLKQKHPEKDLDQLVEMANYALSHQQKSAFYRIQATR
Sbjct: 301 LIPLEGKEVDESREIRILKDLKQKHPEKDLDQLVEMANYALSHQQKSAFYRIQATR 360

Query: 1090 MMTGAGNILLKHAEEQAKKASSMSEVHTDEPEDFISKVFFDPCSYQCLENCGAVLLTVVR 1269
MMTGAGNILLKHAEEQAKK +SMSEVHTDEPEDF SKVFFDPCSYQCLENCGAVLLTVVR
Sbjct: 361 MMTGAGNILLKHAEEQAKKTASMSEVHTDEPEDFASKVFFDPCSYQCLENCGAVLLTVVR 420

Query: 1270 KGGDMSKTMVVDYKTEDGSANAGADYEFTEGTVVLKPGETQKEFSVGIIDDDIFEDEHF 1449
KGGD+SKTMVVDYKTEDGSANAGADYEFTEGTVVLKPGETQKEFSVGIIDDDIFEDEHF
Sbjct: 421 KGGDISKTMVVDYKTEDGSANAGADYEFTEGTVVLKPGETQKEFSVGIIDDDIFEDEHF 480

Query: 1450 FVRLSNVRIEEEQPEEGMPPAIFNSLPLPRAVLASPCVATVTILDDDHAGIFTFECDTIH 1629
FVRLSNVR+EEEQ EEGM PAI NSLPLPRAVLASPCVATVTILDDDHAGIFTFECDTIH
Sbjct: 481 FVRLSNVRVEEQLEEGMTPAILNSLPLPRAVLASPCVATVTILDDDHAGIFTFECDTIH 540

Query: 1630 VSESIGVMEVKVLRVTSARGTVIVPFRTVEGTAKGGGEDFEDTYGELEFKNDETVKTIRV 1809
VSESIGVMEVKVLRVTSARGTVIVPFRTVEGTAKGGGEDFEDTYGELEFKNDETVKTIRV
Sbjct: 541 VSESIGVMEVKVLRVTSARGTVIVPFRTVEGTAKGGGEDFEDTYGELEFKNDETVKTIRV 600

Query: 1810 KIVDEEYERQENFFIALGEPKWMERGIS-----DVTDRKLTMEEEEAKRIAEMGKPV 1971
KIVDEEYERQENFFIALGEPKWMERGIS +VTDKLTMEEEEAKRIAEMGKPV
Sbjct: 601 KIVDEEYERQENFFIALGEPKWMERGISALLSPEVTDKLTMEEEEAKRIAEMGKPV 660

Query: 1972 GEHPKLEVIIIEESYEFKTTVDKLIKKTNLALVVGTHSWRDQFMEAITVSAAGDEDEDESG 2151
GEHPKLEVIIIEESYEFK+TVDKLIKKTNLALVVGTHSWRDQFMEAITVSAAGDE+EDESG
Sbjct: 661 GEHPKLEVIIIEESYEFKSTVDKLIKKTNLALVVGTHSWRDQFMEAITVSAAGDEEEDSG 720

Query: 2152 EERLPSCFDYVMHFLTVFWKVLVACVPPTEYCHGWACFAVSILIIIGMLTAIGDLASHFG 2331
EERLPSCFDYVMHFLTVFWKVLVACVPPTEYCHGWACF VSILIIIGMLTAIGDLASHFG
Sbjct: 721 EERLPSCFDYVMHFLTVFWKVLVACVPPTEYCHGWACFVSILIIIGMLTAIGDLASHFG 780

Query: 2332 CTIGLKDSVTAVVFAFGTSVPDTFASKAAALQDVYADASIGNVTGSNAVNVLGIGLAW 2511
CTIGLKDSVTAVVFAFGTSVPDTFASKAAALQDVYADASIGNVTGSNAVNVLGIGLAW
Sbjct: 781 CTIGLKDSVTAVVFAFGTSVPDTFASKAAALQDVYADASIGNVTGSNAVNVLGIGLAW 840

FIGURE 2C



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Query: 2512 SVAAIYWALQGQEFHVSAGTLAFSVTLFTTIFAFVCISVLLYRRRPHLGGEELGGPRGCKLA 2691
SVAAIYWA+QGQEFHVSAGTLAFSVTLFTTIFAFVC+SVLLYRRRPHLGGEELGGPRGCKLA
Sbjct: 841 SVAAIYWAMQGQEFHVSAGTLAFSVTLFTTIFAFVCLSVLLYRRRPHLGGEELGGPRGCKLA 900

Query: 2692 TTWLFVSLWLLYILFATLEAYCYIKGF 2772
TTWLFVSLWLLY+LFATLEAYCYIKGF
Sbjct: 901 TTWLFVSLWLLYVLFATLEAYCYIKGF 927 (SEQ ID NO:4)

Hammer search results (Pfam):

Scores for sequence family classification (score includes all domains):

Model	Description	Score	E-value	N
PF01699	Sodium/calcium exchanger protein	294.6	1.2e-84	2
PF00324	Amino acid permease	2.8	5.9	1
PF01971	Protein of unknown function	2.7	8.7	1

Parsed for domains:

Model	Domain	seq-f	seq-t	hmm-f	hmm-t	score	E-value
PF01699	1/2	118	257 ..	12	152 .]	121.3	1.8e-32
PF01971	1/1	644	670 ..	193	222 ..	2.7	8.7
PF00324	1/1	851	877 ..	472	498 .]	2.8	5.9
PF01699	2/2	757	905 ..	1	152 []	181.4	1.5e-50

FIGURE 2D



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1 TTGGATGAGA TCTAAAGCAT TATTAAGAGT GGGGAGTGCA AAGAAGAAAC
51 CCTCATTTCA AAGATGAATG AGAATAATGG CATGTACAAA GGTCTGGGG
101 TGGACAGTCA CTTGGTATAA TCCAAGAGTG AACCTGAAGG CTATTGTTGT
151 TGAATGTAA TAAGGGAGAG AGTGACGGGA TGAAGGGGGA TGAGTGGGAA
201 GCAGTGAATT CCTGCAAGGC TTTGAAGGTC ATGGGAAAGA ATTTGGTCTT
251 TATATCAAGA CCAAGAGAAAG ACTACTAAAG GGCTTCAAAC AGGGGAGCGA
301 TATGCTTAAG TCTGTTTGT TGTTTTTTTA AAAAAAGATT ACGGTGGCTA
351 TATGAGGAAA GTGGAATTGA GAAC TAGCGA GAGTTGGAGT GGTGAGCTCC
401 ATTAGGAGGC TACTGAAGTA GATTCATGAG GTAAGGAGTG ATGGTGGCCT
451 GGGCTGGGAT GATGGTGGTA GAAATGGAGA AAGAGTTGAT AGGATTTAGT
501 GATTGGATAA GGGACAGAAG AGAGATGAAG GCTTTCAGAC TAACATCTGC
551 TTTCTAACAT GAGTAACTGG GTGGCTGAAG ATGCTATTTT CTGAGCTGGG
601 AAACAGGAGA AAAAGGAGCA AATATGGGGG ATGAAGACTT TGAGTCTTTA
651 AGGTGCTGTA CAAACACAAA TCAGCATTC TTTATTACTA AGGGTATCCC
701 ACACAGTTGT AGCAGAGGGA GAAAGATCGC CCCCCCCCCA CTTTTTTTTT
751 TTTTTTAGCT ATTCCATGGT ATTTTCATTC TCATCCACC CAAATGAGGC
801 AGTGAGTGGT AAGATGAGTA TATAATAGTT TCAATTGCAT TTCATCCCAT
851 TCTTCTGAG TCAAGCTCAC CTTTGTAGTG TTTGAGGCCA GTAGATGAAG
901 CTGCATATCA CCCCCAAAAT CTTGTCTCTA GTTTAACAAA ACTTATTTGA
951 GAGACATTTG CATGTTTTAT TAATAATGAT TTTTACCCT TGTCCTTTC
1001 CATGTTTGGG TTTGAAATTT GAGTGGCTGG CGGATGATCA TCTTCCTGTT
1051 ACTGCCCTGT TAACTGCTC ATAAGCAGGT TTTACTGGAG GGCTCAGAGC
1101 TGCTGTGAAC TTGGTCTTGG GCACAACCTA CATGGCCTCT GTTTGGCTAT
1151 GGGGTGGGTG GCATTACCA TTTATCAACT CTTTGTGATT CCCAAGCTAT
1201 CTCAGAATTA TAGCTTGCCCT CCAGAAGTCT TGCAATCGGG GAGGAAGTTT
1251 CTTTCCAAGG GAGCTCAGTT TTCAAGGTTT ATTGCTCTGT TTAATGGATG
1301 AGATCTAAAG CATTATTAAG AGTGGGGAGT GCAAAGAAGA AACACTCATT
1351 TCAAAATCGA TTGAGAATAA TGGCATGTAC AAAGGTCCTG GGGTGGACAG
1401 TCACTTGGTA TAATCCTGGA GTGAACATGA AGGCCAAGGA AATATGTATA
1451 CATTAAACAG AGCAAGGTTT TCAATTTTCT GGGGACTAGT CCATGAAAAT
1501 TCAATTCAAT ATACTCTCTT GCAAACCTAT GTTATCCAAG ATACTCAAGT
1551 ATAATGACAA CAGGGTAAGG AAGTCCGAAC ACCCCAGAAA CAGTATAAAT
1601 GGGCATGAAG ATTCAAGTTA TACATGGCCT ATTTTAAAGT GCTTCTTGAG
1651 AACTCTACA GCTTAATACCA GTTTGGGAGA CAGGACTTGA AGGCTATTGC
1701 TGCAATTTCCA TCCCCAGTAT TCCCAGCTAT TTCAAGCCAT TTTTCAACGG
1751 AGTCTCCACC AGATGGTTTG GAGGACAGAG CAGCTATTTG TGCCTCCCAT
1801 TGACATCTAT TTTTCCAAAGT GAGAGACTGC CCCATATGTT AGTGCAATAT
1851 GTCATGGAG GTGAAGCATC AGTTGTATTG GTGGGAACCT GCCGTTTGCT
1901 GTCCCCTTT TCTCATGCC TTTTCTGCC TCTCTGATCT TTTCTAGGTC
1951 TCTGGCCTAT CAGGAGGACA ACTGGTGCTG CAATAGAAGC CAGTGGCTAA
2001 GTCTCGTGTA TGGCGTGGTT AAGGTTGCAG CCTCTCACCT CTGCCCTCCT
2051 CCATTTTGGG CTGGTTACCT TTGTGCTCTT CTTGAATGGT CTTGAGCAG
2101 AGGCTGGTGG CTGAGGGGAC GTGCCAAGCA CAGGGCAGAA CAATGAGTCC
2151 TGTTCAAGGT CATCGGACTG CAAGGAGGGT GTCATCCTGC CAATCTGGTA
2201 CCCGAGAAAC CCTTCCCTTG GGGACAAGAT TGCCAGGGTC ATTTGCTATT
2251 TTGTGGCCCT GATATACATG TTCTTGGGG TGTCATCAT TGCTGACCGC
2301 TTCATGGCAT CTATTGAAGT CATCACCTCT CAAGAGAGGG AGGTGACAAT
2351 TAAGAAACCC AATGGAGAAA CCAGCACAAC AACTATTCGG GTCTGGAATG
2401 AAAGTGTCTC CAACCTGACC CTTATGGCCC TGGGTTCTCT TGCTCCTGAG
2451 ATACTCCTCT CTTTAATTGA GGTGTGTGGT CATGGGTTCA TTGCTGGTGA
2501 TCTGGGACCT TCTACCATG TAGGGAGTGC AGCCTTCAAC ATGTTTATCA
2551 TCATTGGCAT CTGTGTCTAC GTGATCCCAG ACGGAGAGAC TCGCAAGATC
2601 AAGCATCTAC GAGTCTTCTT CATCACCGCT GCTTGGAGTA TCTTTGCCTA
2651 CATCTGGCTC TATATGATTG TGGCAGTCTT CTCCCCTGGT GTGGTCCAGG
2701 TTTGGGAAGG CCTCTCACT CTCTTCTTCT TTCCAGTGTG TGTCTTCTG
2751 GCCTGGGTGG CAGATAAACG ACTGCTCTTC TACAAATACA TGCACAAAAA
2801 GTACCGCACA GACAAACACC GAGGAATTAT CATAGAGACA GAGGGTGACC
2851 ACCCTAAGGG CATTGAGATG GATGGGAAAA TGATGAATTG CCATTTTCTA
2901 GATGGGAACC TGGTGGCCCT GGAAGGGAAG GAAGTGGATG AGTCCCGCAG
2951 AGAGATGATC CGGATCTCTA AGGATCTGAA GCAAAAACAC CCAGAGAAGG
3001 ACTTAGATCA GCTGGTGGAG ATGGCCAATT ACTATGCTCT TTCCACCAA
3051 CAGAAGAGCC GCGCTTCTA CCGTATCCAA GCCACTCGTA TGATGACTGG
3101 TGACGGCAAT ATCTGAAGA AACATGCAGC AGAACAGGCC AAGAAGGCCT
3151 CCAGCATGAG CGAGGTGCAC ACCGATGAGC CTGAGGACTT TATTTCCAAG
3201 GTCTTCTTTG ACCCATGTTT TTACCATGTC CTGGAGAACT GTGGGGCTGT
3251 ACTCCTGACA GTGGTGAGGA AAGGGGGAGA CATGTCAAAG ACCATGTATG
3301 TGGACTACAA AACAGAGGAT GGTTCTGCCA ATGCAGGGGC TGACTATGAG
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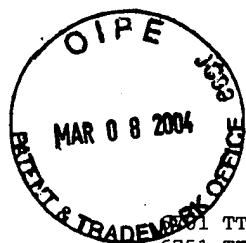
FIGURE 3A



Docket No.: CL000891
Serial No.: 09/804,474
Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

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3351 TTCACAGAGG GCACGGTGGT TCTGAAGCCA GGAGAGACCC AGAAGGAGTT
3401 CTCCGTGGGC ATAATTGATG ACGACATTTT TGAGGAGGAT GAACACTTCT
3451 TTGTAAGGTT GAGCAATGTC CGCATAGAGG AGGAGCAGCC AGAGGAGGGG
3501 ATGCCTCCAG CAATATTCAA CAGTCTTCCC TTGCCTCGGG CTGTCTTAGC
3551 CTCCCCTTGT GTGGCCACAG TTACCATCTT GGATGATGAC CATGCAGGCA
3601 TCTTCACTTT TGAATGTGAT ACTATTCATG TCAGTGAGAG TATTGGTGTT
3651 ATGGAGGTCA AGGTTCCTGCG GACATCAGGT GCGCGGGGTA CAGTCATCGT
3701 CCCCTTTAGG ACAGTAGAAG GGACAGCCAA GGGTGGCGGT GAGGACTTTG
3751 AAGACACATA TGGGGAGTTG GAATCAAGA ATGATGAAAC TGTGTAAGTA
3801 ACCTTCTCTG ATTCTGCCCC TCCCTGACCC CATCTTTTGC CATCTCTTTC
3851 TGTCTTTCTG TACTGCACTT TACAACATTT CCTTGTGTTT GTGTAAATGT
3901 CAAACTTTGG TTCCATCACA GGTATGCAGG ATCAGCAGAC ACCACTGGAC
3951 AGGTTCTGCT TCCAAACTCT TCTTCAGTTT TCTCACTTTA AATTGTTTCT
4001 GGGCAAGTAA TCCTGTGACA AGAGCTAAGG ACACAAAACA TTTTCTTCTC
4051 TGAAACACAA AATGATAGCT GGTGGAGCTG TGGGATGACA GAAGTTTTGT
4101 GATATCAGAT TTTGGAGAAT TCTTGTGACT AAGAAGGACT AGAGAAGTGC
4151 TTGGGCTCTT TCTTCTCTCC TTCTCATAT GAAGGGTATC TATGAGCTTT
4201 GAAACCAATC CTTTCCATTG TGGGCAGCAA TAGCCCATCA GAACATTCTA
4251 AAGAAAACAA GTGGCATTGG CTTTGTCTCC TGGTACTATA TTGCCAGTCT
4301 CACTGTGTAA CCAGATTCCA GGCACGTCTT CTTTAATTTG GAAATTGCAA
4351 AATTGATAGA AATTTAGCAA TCTTTTAAAG TGACCATAGA CTATTTAATG
4401 GTGTGAGCTG TGCCAGCCCT AGTTGAATTG AGTCAGTATG GTTTGGATAC
4451 TGGAAAGTAT CTTGGAGAAG CAGAGCTCCC AGGGCAGTGG CTACTTGTCT
4501 TTAGTCACAG GTCTAAGCTC CAAAATCTGG TGAAGCAGTG AAGGAGAAAC
4551 ATCCTAGGAA TTGTGGGAGG AAATATATCT TCTGTGTGGT CCTCTCTTTT
4601 CACAGTCTAG GACTCTCCTG AAGTACCTCT TCTTGGGCTA CTGCCCCATT
4651 CAGCCCTTCA GAAACTGTGG GTATTACACT TCTGTACCTT CTATTACCCT
4701 AAGGCCCTCT CCCATTGAAC CCTCTTGCAA ATTGTTTATT CTGTCTTTT
4751 TCCAGTTGGA TAGCTTTAAA AGGGAAGACA GAATGACTTT CCTCAGGATT
4801 TGTAGCTTAT GAGAAAGTAG ACTTCTTGG GTGGCTAGA AGGTGGAGA
4851 AGACAAACGG GAACTTCCTC TGAATGACTG AACATATCCA CAAATAATAA
4901 GCGTGGCAGG AGATGGTGTG AAGAGTAAAA GGAGCATATA GGAAGTTGTG
4951 TGTGTGGGGT GTCTGTTTCA AGAAGCTGCT AATTATACCT TCAGTAAGAA
5001 ATGAAGCCAT ACAACCTCTA GAAGAGGAGG AGGAAGAAC TCATGGAAAA
5051 GTGGGGAGCC ATAGAAGCTA GGGAGAGGTG TCCTAGGAGT GCTTCTGCCC
5101 AGGTCCAGCC ATGAGACAGA GCTCAAAAAG AGCTGGGCAC TGCTGGTGAC
5151 AGAAGTGAAG GACCCGGGGG ATCCTGCATC TGTTCTTACT CAATCCCTTC
5201 TTAATAATGT GACTTGGGGC AGGTCATTTA TTGGTTCTGG AACTTAACCT
5251 TCTGATATGC AAACCTGGGA TAACAATACT TTCTTGCCT GGAGGCAAGG
5301 TCAGTCTTTT TTGCACTTCC TTCCAGCTCT AAGATTTTCT GAACCATAGA
5351 CATAAGCACT CAGTGTAGGT CATATTCGCA CTTGCCAAAA ATGGATCAGG
5401 GAATATTGTC TCCTGAAGGG AAATGGCCAT TGACAAATTG ATTTATTAGA
5451 GCTCTGTTTA GTCATTTTGC TGGGAAGGAT AATCATTTGT TAACGTAAGT
5501 AGAAACCTGT GCCTTCTGGA GAATACTATC CATTTATATG TACTCTGGGG
5551 AGAGTGTTTA TACATACAAA TGAAGGACAG GGCTTCACTG GGAACACAAA
5601 CTCCATGGAA TTTACATGA TTATCGCGAT GTCAGTGTGG AAGAAGATAT
5651 GGTAAGGCAT TAAATGACAT TAAGACCACA AAATTTGCCA TAATTTGACG
5701 GACTTGTGGT TCTTCTGATT CAGAACCTT TCTACCCATG TCACGGATAG
5751 GTAGTTTTCG AGAGATCAGA GGCTTAGTTC ATTCTATTAA TTTCTCTATT
5801 CTATTAATAA TCAATTATGC ACCTAGGGTC TCTGAATACG ACTAAACCTT
5851 CTTCAACTT ATTTCGATT TCACTTTGTA TAATATCTTG GTGCAAAATGA
5901 GCCTCGCAAA TGATCACTTC TGGGTAATAC TCATTCTAAA GGTATGTCAA
5951 CCTTGAGAA TCTGGTCTAG ATATTCTAGG GTTTGGTGAA CAAATCTATG
6001 TTCCCATCCA TCCCTTTTCA TTTATTTTCT AGACTTCATT CATTGCAGAA
6051 TAATGAGTCC AAAACCTGCT CATCTGTTCT CACGTGGCAC CCTATTCTT
6101 GATATTTTAA ATTGCAATTT TACAACCTAG GGCAGTATTA CGGAGCAGAA
6151 AAATCGTGGG TTCTAAGTAC TCTGGGTTAG GATTCTGGCT CCACTACTGA
6201 TTTAATAAATG TAGTTTGGGG AAATTTTATT AACCTATGAA ATTATTTCCT
6251 CATTGGCAAA GTGGGATAA TAATATCTCT CTTGCAGGGC CATATGACG
6301 ATTCAAGGTA TTGTATGCGG TGTACCTGGT ACACGGTATA TGCTCAGGAA
6351 ACAAGACTCT TCATAGTAAT ATTGACGAAT TAACAATATT CTTCAGAAGA
6401 CACTGTGGAG TTGTTTAGGT TACTTGGCTC TTTGTGTGAC CCTAAGTAAT
6451 GAGCATGCCA GTTTGGGGTT ACTATGAAGA GTACTTACCT AAACCTATAA
6501 AATATTAGAG CTAGAAAGGA CCTTAGAATA TCTTCTGCAG TCATGGTTCT
6551 TAAATTTTAA TGTGTTGCTC AATCATCCAG GGATCTCACT GAAGGGCAGA
6601 TTAGGATCCA GGAGGTCTAG GGGAGGGATT GAGATTCGCG ATTTCTAACA
6651 AGTCTCTGAT GCTGCGGGCC CCAACTTAGA GGTGAAAGGT TCTGAAGCTC
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FIGURE 3B



Docket No.: CL000891
Serial No.: 09/804,474
Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

6751 TTGACCAAAAC CAGGAGACCC AGCAAAGAAG TGGTTTTTTCA GACAACCTTGC
6751 TTAATTTGAAT AATGATTGTT TGCTCTTTAA TTCCAACCTTT CAATGCCAAT
6801 TTAGCAAGAA CCAGAGGCTG TGCTAATTGC CACACCAGTC TGGAAACCGA
6851 AATGGATAGC TTCAGGGTAC TTGGACAAAG TTGGAACATC TGCTTTCTAA
6901 TCTCTCCCTC TTTGTATAGC TTTATTTGCC TACCAAGCCT GGTAGTATTG
6951 AAAATCTGCC CTCACATATC TCCCCTAAAT ATAATCAAGT TGAGGCCAGG
7001 CCTGTGCTCT ATCAATAATA TAGGATCCAC GAATTCACAT GTTTGGTTTT
7051 ATGCTTTACT TCTTCAAAGG TGCTTTTAGC AGCATGGAAG AATGGAAAAG
7101 CACGAGCTTT GGAATATGAA AGCAGATGTG AATCCATCAC TTACCAGTAA
7151 CTTTTAACAA GTACACATCAC TTTTCTGAGT ACCAGGTTTT TGTGGACAA
7201 CAGAAATAAT ATTCTCTATC CTTCAAGGGA ATACTAAATA TAAGTATGAG
7251 AAAAATGCAC AGTGCCTTCT CGTAGATGGT GTTCAGTCAT TCAACAAACA
7301 TTTGTTAGAT ATTTGCTATG TACTAGCTAC ATTACTAGGC ACTGGGGTTA
7351 AATAAGTGAA TAAGACAAGC TGACATTTCA GCGCTCAAGG ATCTTACTGT
7401 CAAGTGGAGA GGATCAAAGG GTACAGACAA ATCAAGGAAC GTGAGAGAAG
7451 TGGTATGGCT GAGATGGATT GAATAAAGGA GCAATGAGAG CTCCTTGCAA
7501 TGTGTGTGGT ACCACTGAGG ATTCTAAATT AACCTTCATT AAGGACTTAG
7551 TAGTGACAGA GGTGAAGTGG GGATAGGTAC ATGATTAAAT TACATCCATA
7601 TTACAATGAA ACCTTAACAT TTAAGAGGGA TATTATTGAT GTCTTCATGA
7651 TCCAGAAGAA TCCTCACCTT TGCAACCATC ACTATAGTCA CTTCTTGAGA
7701 ATTATGGCCT TTAAGACTGT AGCATGCAAT GACAAAACCT CACAGAGGTA
7751 TGGGTTCTGC CCGCACACTA ATTTCACTCA TTAAACAAGT GACTGGCTCC
7801 TATATCCCAG GCTCTCAGCA CGCCTTTGCA AAATAACAGA TTATTGCAGC
7851 TCTTGACCTT TTGATGCCTC TGGGAATAGT CAAAGCCACA GATGTCAAAT
7901 ATGTAATATG CAAGATCTAT TATAATTAAA TAGTGCAGGC CTCCTTCAA
7951 GAAAAAAGC ATGTTGGCTG TGCTGCACGT TCTCCAACCA AATCAGAATG
8001 TTAAAGCTCG AAGGTATCTG ACCTCCCATT TTTTAAATTA TGAAGATGAA
8051 ATTCAGAAAG GGAAGGTAAC TTATCCAAGA TTACATGGCT AGCTATGATA
8101 GAAAGTTAGA GTTGGAAAGG ACGTTAGAAA GTGAGGGTTT GAAAGGACTT
8151 TAGAAGCTGC TTATTCAATG TTCTCTCTGC CCTTTCCCAT CTTAGGCTTC
8201 TCCATTTTAC TTTTATCCAT CAATAAAATG TTAACCTCAA AAAGAATATG
8251 GCAATTCCTG GGTAAAAGAT GCTCTGGAAG TGTGAGTCCG GGAGTATTAT
8301 GTGACTAATG TCTTAACTAA GAATAATAAT ATATTATGGA CTAGTTTTAA
8351 TCTCTTGTTC CACCTTGAAC TGTTCAAGAA GGAATAAGC CCACGGAAAT
8401 TTTTTAAAAA GTCTTTCTCT ATCTGAATTG AGAAAAGGTG ACAGGCATAG
8451 TTGGAACATC TTTTAGGCAG TGCTGGTGAA CTTCAGGCTA GGCCTTGTTC
8501 CATGAATAAA TAAAAATTTT CAAAAATAATG CAGACCATTTC CCTTCCAGGG
8551 ATGCTTTTCT TGTAATGTTT TAACCCCAAG AAATCTTTCT GTAAAAATCT
8601 ATAAAAATCT GGAGTGTTC AGGATACAAT TTGCACATTC TCCAATTTAA
8651 CTAAACACA ATCGATTTTT TGTTTTCTTT TTCTTTGGCT TAGCAAGGTT
8701 TTAAGATAGT CTCTTTCTGG CCACAGAGGG AGATGATTTG CCTCTAGAAT
8751 ACCCTTTCTG TGCTTGAGAG AGTCACAAGA CTGCAAGCTC ATGGAGGATG
8801 AGAGTCAAGT AGAGGTGGTG ACATCTCTCC CTTGGCCAAC ATCCCTCTCT
8851 TTCTCTTTCC TTCTGCCTTC AGTGGCAGTA GCAAAAGTCC TCCTTCTCTT
8901 TAGGTAGACA GTCAGCCACT ACAACTGTGG CTTCTGAAA TCCTCAGTGG
8951 AGCTATGTAC TTGGCACAGA TTTGTCTTGA AGAAGGGACT CCATTTCTGA
9001 GCCAGTTGTT GAATGGGGAT ACTTAGCAGT ACAGTGAGGC ATTTCCAGTA
9051 GGATTGTTCA ACCACAATTG CCCACTTTCC AGGCCCAAAG GAATAATTGA
9101 AGGCTATGTA GACTTTTTTT TTTTTTTTTT TTTTTTTTTT TTTGAGATGG
9151 AGTCTCGCTC TGTCGCCAG GCTGGAGTGC AGTGGACAT CTCGGCTCAC
9201 TGCAAGCTCT GCCTCCCGGG TTCACGCCAT TCTCCTGCCT CAGCCTCCCG
9251 AGTAGCTAGG CCTAATATAT ATATATTATA CATATATATT TATATTTATA
9301 TATATATATA CCACCACGTC CGGCTAATAT ATATTATAC TTTTTTTTTT
9351 TAGTAGGAAA GGGGTTTCAC CATGTTAGCC AGTATGGTCT CGATCTCCTG
9401 ACCTCGTGAT CCACCAGCCT CAGCCTCCCA AAGTGCTGGG ATTACAGGCG
9451 TGAGCCACCG TGCCCCACCA TGCTATGTAA ACTTTTTAGC AGAAGCTTTA
9501 GCTATTGTGT CCCGAAGGGC CCCAGGTCAT GATGAAATGT CTTTTTTTTT
9551 TTTTGTCTCT TTTCTTCTTA ATTAAGTACA CTGTCAAAGA ATATGTCAA
9601 GCATGACATA TTCCAACCTC AGGATCCATA AAACACCCCA AGTCTGTGG
9651 AGACCCTATC ACATCTGCAA AACTCTCCAG GAAGTCCAGA GCCCTCCTGG
9701 TTAATTTGTT TTAGGGACTA GGCATGCGGT ATCCCTGAC AACACTGGAT
9751 CAGCAATTCT CCTACCTAAG TCAGTCCAC ACCATGTGCA GCAGAGTATC
9801 CAGTGCCCTT GCCCTGTCT GCTCACATTG GTTTGCTCTC CAGAATAATA
9851 ATTCTCTAAT ATCCACAAGA GATTGATTCC AGAACTACTC CGAGGATACC
9901 AAAAATCCTC AGATGCTCAA GTACCTGGTA TAAATGGCA CAGTATTTGG
9951 CATATGACCT AGGCATATTC TCTCCCATAT ACTTTATTTA TTTATTTAAT
10001 TCGGGACAGA ATCTCATTTCT GTCGCCCAGG CTGTCACCTG CTTATTGCAA

FIGURE 3C



Docket No.: CL000891
Serial No.: 09/804,474
Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

10051	CCTCTGCCTC	CCAGGTTCAA	GCAATTCTCC	TGCCTCAGCC	TCCTAAGTAG
10101	CTGGGACTAC	AGACGCATGT	CACCACGCCT	GGCTACTTTT	TGTATTTTTA
10151	GTAGAGACAG	AGTTTCACCA	TGTTGGCCAG	GCTGGTCTCA	AACACCTGAC
10201	CTCAAGTGAT	CCGCCACCT	TGGCTCCCA	AAAAGCTGGG	ATTACAGGCG
10251	TGAGCTACCA	CGTCCAGCCC	CCCATATACT	TTAAATCATC	TCTAGATTAC
10301	TTATAATACC	TAATACAATG	TAAATGTTAT	ATAGTTGTTT	TAATGTATTG
10351	CTTTTTTTAT	TTGTATTGTT	TTTTATTGCT	GTATTATCCT	TTTTTATGTT
10401	TTATTTTTC	AAATATTTTC	TACCCGTGGC	ACCCACAGTT	GGTTGGTGGA
10451	ACCTGCGGTT	GGTGGAGCCC	ATGGATGTGA	AGGGCTGATA	GTATGAGAAA
10501	ACTCAGAGGT	GCAGAGTTGG	AGAGCACATC	GGGAGAAATG	TCAGCATGGG
10551	TTAAAAAAGA	CACACTGTGG	TTGGAGATGA	TCACATGAAT	GGCCACTTCA
10601	AAAATGAATG	GGTCTCATCC	TCAAAGCAGG	CTCTCCTGGG	CACTGCTTGG
10651	GAAGGTGCTA	ATTGGAGCTT	CAGGCAACAA	TAATAAGGGG	ATACAGGTGG
10701	GGATCCTGAG	ATGGGCGTAG	CTTACTTTCT	CTGGACTCTT	CTGGGCTTCA
10751	AGGCCAGTTT	CCTCATCCAC	TCAAAAGAAT	GACAGCAAGG	TGAGCAAAGC
10801	AAGGCAGGTA	AATGAGGAGG	ACTCTTCTG	GCTGTCCAAC	TTTTCATCAA
10851	TTTCCCAAAG	GTTTTTGGAT	GGGACATGAG	CACTCATTCC	TTCTCCACCC
10901	TTTAGCTAGG	CCCTGTCAAC	TCCAGGAGGA	AGGTAGAAGA	GGTCAGAGCT
10951	GTGGTCTTTC	ACTTATTCAA	GATGTTTCCT	TAGTGTTTTG	TGTTTGGGTT
11001	TTTTTTGTTT	TTTTTTTTTT	GACAGAGTCT	TGCTCTGTGT	CCCAGGCTGG
11051	AGTGAAGTGA	AGTGGCATAA	TCTGAGCTCA	CTGCAACCTC	TGCTTTCGAG
11101	TTCAAGCTAG	TCTCATGCCCT	CAGCCTCCTG	CATAGCTGGG	ACTACAGGCA
11151	TATGCTACCA	TGCCTGGCTA	ATTTTTGTAT	TTTTAGTAGA	GACGGGGTTT
11201	TGCCATGTTG	GCCAGGCTGA	TCTCAAACCT	CTGACTTCAG	GTGATCCAGC
11251	CACCTTGGCC	TCCCAAAGTG	CTGGGATTAC	AGGTATGAAC	CACTGCACCT
11301	GGCCCTTAT	TGTTGGTTTT	TAAAAGAGAA	ACTAAGCTGT	GCTTCCAGAA
11351	CCCAGTTTGA	GAAAGTTTGA	AGACCTGGCA	TAGAGCCAGT	GACATATAAT
11401	TGTTAGTTGA	AGAAAGAGAG	CTCCTTGATC	TGCAAAATAG	GCACGGCCCC
11451	ATATTTAAAT	TCTGCACATT	CTAGAAGCAT	TTTGCAAGAA	TCAAATGCTT
11501	TGAGGATTTT	GCTAAATAAC	CATGGAGGAA	AGCACTAGAC	AAATATTTTC
11551	AGATGGCATG	AGAGTTATCA	TTCATAGGAA	TTATATTTCC	ACTCCTACCA
11601	CTTACTGGGG	ACCCAAGTAA	GAAATTACTT	GGATAAGCAG	AGGAGAATTT
11651	AAAGTTGAAT	TGTTGGGAAC	TTATTATGGA	AAAAATATGT	TTTCTGAAA
11701	ACTGGATATG	TGTATATATA	TAAGTTCAGT	TGTCATTTTG	GAACCATCCT
11751	TACTCTTCCT	AGCTAAGGAT	TAGCATACAT	AGGTGCAACT	TGACTAACTC
11801	TGCCTGGACC	CAATTCAGTT	ACCTTTTGGT	GGGTAGGGTT	CATGAAGAAG
11851	CAGTTATTTG	TGGAGTGTAT	AGAAACCACT	CTATTTGTAG	TTCTTTAGTT
11901	GGTACTTTCA	AAATAAGTGA	CATCCAAATA	GTAACCTAAT	ATTCCAAATA
11951	TGGCTGCAAA	ACAAATTGTC	GATTATGGAT	GACTACTACT	GCCATCTCTC
12001	CATACCAGTC	CATCTTCTGC	CAGGCTGTTT	GGTCTTGATT	TGTCGACCTT
12051	TTAGGTTTCT	CCCCATGTAT	TCCACATGAC	CTTCACCAAC	CCCACTTCTA
12101	TCTCCAAACG	TCTTCTGAG	TTGTGGGGAT	GCAGATGTAT	TCTGCCACCA
12151	TCACAAGGCG	TAAACGAGCC	CTGGCTGCGG	ATCTTTCATT	TTGTTCACAT
12201	TATTTCCATT	CTTACACCTT	ACTTCATGTT	TGTACACTAT	TTTCTTACAT
12251	TTGCTGTCTC	TTCTAAACAT	TCTTTGCTGC	ATCCACTTTT	TCTCTATTTG
12301	TGCTCTAGGT	GCTGCAGAGG	CTAATGCTGG	GTTTCCTTTT	ATTCTCTCTT
12351	GCACTCAGCA	CCTCCCTTCT	CAATTCCCTT	TGCCATGTCT	CCACTTTAAA
12401	TCTTAACCTA	CTCCAGATAG	TCTTTTCCTT	CACACTATTG	GCATCTGTGC
12451	TTGGGTGCT	TTCAGTCTAT	TCTCTGATCT	ATGATTTCTT	TGCATGATCA
12501	AGAAGGTGCC	ATGAAAGGAT	CCCTTAAGAA	AGCCTGTCAT	TTAGCCAGAA
12551	CGAACTAGCT	TCATGATAGC	ACCAGGAAGA	CTGATATCTC	CCAGGAAACA
12601	AACCACTCAT	GGTGGTGCTC	TTTTTGCCTT	CACTATGAAG	TGTTTGTCTG
12651	CCTGTATGTG	AAAACGAGAG	GGTTTAATTG	TAAGGATGCA	GCACAGATTG
12701	GGACTGGCAT	CAGAAAGCCA	TTGGGGACTG	AGGTAGCTCT	AGAGACCGCT
12751	TTCTGTCTCC	AGTGTCTCTC	CTCCTGGGTG	ACATGTTTTT	TGTCTCCTGG
12801	CATCTCTGCT	TCTCTCTATG	GGCTTCTTTA	TTATTTGCAG	CTTGCAATGG
12851	TACCCCAAAG	TCCTAGCTCA	TGGCTCCTCT	CTGCATATAT	GCTTCTCTGT
12901	CCTACCCACA	AAGCTCTTTC	TATTTCTTCT	GTTTAAATTT	TCAAGAGAAG
12951	AAATCTGATT	TTTTTTTAAAC	CTGGTCATGT	CAAGAGCCAC	TGACCCACATA
13001	TGAGCTGGTT	GCCCTGTGTC	AAGTGCCCCC	TTCTCCCACC	CTCTTCCCCT
13051	CCCCATCTGG	TCTGTCAATA	CTGAATGATG	GAGTGGGAAA	TTGAAATTGC
13101	CATGGGAATT	CCATGATAAG	CTATCTAAAC	AGTTTTATCT	ATAAGTGCGT
13151	GACAGAGTCA	CTTAGAAGGG	AGTCCCAGGT	GAGACAGGCA	CCTGTCAACT
13201	CCAAACTGGC	ACACATTCTA	AGGTCTGCAA	CACCCAGAG	AGAGCACTGA
13251	TTTTGTAGTG	GCCTGTACTG	GGGCGGTAGG	CTGGAGAAAT	GGAGAAATAG
13301	CCACTTCAGA	ATCCCCCAGC	CCAAATGCAT	CAAGCTCACT	ATAGACTCTG
13351	CAGCCACGAT	TCAGCTGGCT	TCTGCTCAGA	TCAACAGAAA	ACATTCTTAG

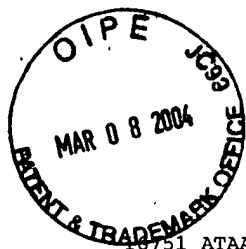
FIGURE 3D



Docket No.: CL000891
Serial No.: 09/804,474
Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

13401	TGAATGATGC	TTGTGGCACA	TATCTCAAGG	CTACCAGGGT	CATTTCTTCC
13451	CATTTACTTT	TTCTCTGATC	TATCCTCTCC	AGGACACTAG	CGTCAGAAGA
13501	TAATCTTCCG	TCGTTTTCAG	GTACACTATT	TGGGTACTGA	GTCACCTTCA
13551	AAGCCTCTTT	CTGGGTTTGG	ATTTCCAGAG	CAGCCTGTGC	TGTAAAGCAA
13601	GACAGAAAGC	TTCCCTGCCA	TTCATGCCTG	CCAGGGATAG	AATGACAGTA
13651	CTCCTGAGGC	TCTCCCTCCC	CACCCCTCCC	CTGCTGGACA	GCTGATCTGC
13701	TGGACTCAGC	CAGAGCCAGC	AGGCACCCCC	TCTTTATCCT	AGGAGCTGCA
13751	AACTTGATGC	CTTTCCAGGA	AATCCCCAGA	AGCTGGAGTA	TCCTCATCTA
13801	CATGTGGCAC	AGTGTATGGT	TGTGTCAGGT	GCTCATGTCC	CATTGCATAG
13851	GACTGGGGTG	GAAAAATAGG	ACCGTCCTTT	TGTGTCAGCT	CCAGTCAATG
13901	AGTAGTGGCC	ATCCAGGGGG	CCATCTTGGA	AAGGACTTGT	GAGGCTGTAT
13951	CTGCGCTCAG	TTGTAGATGT	GAGAAGAAAA	GGCCAAATAT	CTGCCAATCC
14001	TAGTCCTGGG	ATTCAAGATA	GAAAGAAGCT	CATGGAGTGA	AGAAACTAGG
14051	AGTCTGCATT	TCTACTGAGAT	GCATAAGAAT	GAAATTATTG	TCACTATTTC
14101	TTCAATACTG	GGCCAATCCT	AATAAGAAAA	CCCTTTTGTG	GTCTCTCTTT
14151	TCTTTATCCT	ACATATAACA	CAGAAGCTTT	TTCTATTCCC	TGGATGAACC
14201	CACAGGGACA	GAAATCTTTG	TTGGACAGGT	GAAGCAGATA	ATTTCTTTAT
14251	CAGACTAGAA	TCTTCCAGAA	GCCTGTCTAA	CCTAGTGAGT	TTTGTACTCT
14301	AGACAGGTGG	TTCTCAAGCC	AGCTCCCCAC	CGCAGGCCCT	TTTCATGGTC
14351	TGCCCCCTCC	TGTGGAACCC	ATGTTTATAG	TTATTAGCTG	ATAATTGGAT
14401	TTCTATTTTT	TCTCATAAAA	TACAGCAAAA	GATAGCTAGT	GATATTATGA
14451	TGAGTTAATG	TAATTTATAG	CAAAGCAGAG	AGAAACAACA	TTTTAATTAA
14501	CCTGTGTGGA	CTGCTGGAAG	AATATAAACT	TTCTATTTTG	GGGGTTGAGT
14551	AGAGACAGAA	ATGAACACAG	CCAAGGGCTG	ACTGTCAGAG	GACATTTAAC
14601	TGATGTAATA	TGCTTTGAAA	TTATTGGGCA	CTCATTTGTT	AAAGTTGTTT
14651	TTGATGATGG	TAACCTCCGT	AGGGGATCAG	AACATGCTGG	AAAGAATGGG
14701	CACAGCTTTG	GTTACCTGGG	CCTTACCCT	GTTATTCAGG	CCTCTGAGAA
14751	AGCTTACTAT	TGTTGTTATG	TTTCTTACAT	AATAAACTT	CTAATATTTG
14801	TATGAAAACA	TAGAATTTCA	CTTTTAAAGA	TGTAAGGATT	TTGTCATACC
14851	ATTAGGGTTA	CTATGATCAC	TTGATTCTAG	GTCTAAGAAA	TATTAAGTAA
14901	TTTACCCGCG	AACACAGAGT	TTTAAGGGTA	AGTATCAAAA	CCTTGATCTT
14951	CTAATACCAC	ATATTCTCAC	TCATATGTGG	GAGCTAAAAA	TATTGAGCTC
15001	AAAAAGGTAG	AGAGTAGAAT	TGTAGTTATT	AGAGGATGCG	AAGGAGGATA
15051	GGGAGAGGTT	GGTTAATGGA	TACAATGTGA	AGTTATGTAA	GAGGAGTAAG
15101	TTCTAGTGTT	TTGTAGCACT	GTAGGGTGAA	TATGGTTAAC	AGTAATTTAG
15151	TGTATATTTA	AAAAAAAATA	GACAGGATTC	TGAATATTCA	CAAAGAAATG
15201	ATAAATATTC	AGCTGGGCGT	GGTTGCTCAC	GCCTATATTC	CCAGCATTTT
15251	GGGAGGCCGA	GGTGGATGGA	TCACCTAAGG	TCAGGAGTTT	GAGATCAGCC
15301	TGGACAACAT	GGTGAAACCC	CGTCTCTACT	ATAAATACAA	AAAATTAGCT
15351	GGGCATGGTG	CGCACACCT	GTAGTCCTAG	CTACTTAAGA	GGCTGAGGCA
15401	GGAGAATCGC	TTGAACCTGG	GAGGCAGAGG	TTGCAGTGAG	CCGAGATCAC
15451	GCCACTGCAC	TCCAGCCTGG	GTGACAGAGT	GACACTCTGT	CTCAAAAAAA
15501	AAAAAAAATA	GAATGATAAA	TATTTAAGGT	GATAGATATG	CTAATTACCC
15551	TGATTTGATC	ATTACACTTT	GTATACATGT	GTCAAAATAT	CACTCTGTAT
15601	CCATACATAT	GTATAATTAT	TATGTGTCAA	CTAAAAATAA	AAGGAAAAAA
15651	ATCATTTTCA	TGTATTTTACA	AAACATATGT	AACCATTAA	ATAATGTTT
15701	TAAATTTATG	CTAAGGGTGT	GATAAAATTA	CAGTATAAGA	TTGTGCTTGA
15751	AAAAGTGCAA	TAAGAAGTAA	ATATGTACAG	ATGAGAAAAA	GTGCAAAGAA
15801	CTAAGTCCTA	AGCAGACTAT	ACCTTTCCCT	CTGCATGGTA	CTTCTCTGGC
15851	CTTTTGCTTT	GAAAGATTTT	GCACCCAGCA	TGGCAAGTGG	TTAGCAGAGG
15901	CAGCCATTCT	CACCTGTGCG	TTGGCTTTGG	GAGCCATATA	TGTTGTTTCA
15951	CTGGGTGTGG	AGTGGAAAGG	CTGCATGTTG	TATTAATGCA	TTGTTAAGAA
16001	CCTCTAAGAG	TGATTTCTTT	TGGGAAGTGA	GACTGACGGT	CCGAATGGTG
16051	GAAAGACAAC	TTTTAATCTT	TTACTTTACA	CTTTGTGCAC	TTTTAATGTT
16101	TTAACATGAG	CATGCATTTT	TTTAATAATA	AAAAATACAA	AAAATTTTAG
16151	CCCTAGATCT	TCTGATTTTA	AACTGCATAT	TCTTTCTATT	GTGTTACATA
16201	TTTTAGCATG	AGAAATAAGG	TATGAAGCTG	GAAGTAGCAG	GCTCCCTTTT
16251	CCTCATATGT	AGGAAGTTAA	GAATGCATTC	TACGTTTCTT	CTTTAAGGAG
16301	TTGGCTTCTT	TGCTTTTAA	ATAGGGGTAA	CTGGGCCAG	GGAGTTTGGC
16351	AAGGGCCAAA	TAAAGTCCTT	AATGCCCAGC	TCAGAAATCT	GGATTACCCA
16401	TCCTTGACTG	CTGGCTCCAA	CCCACCTCA	CCTGAGCTGG	TCTGCAGAGG
16451	ATTCTTGTTT	GTGTCACCTT	ATCACCAGCA	ACTACCGACA	GATGATGCTT
16501	TGGCCTGCTG	CCTGGGTAAC	AGGGCGAGGC	TGGCTCAGGA	CCATGTTTTT
16551	AGATCAGGGG	ACCTCCTTTT	ATGCCATGTC	CATGGTGTCC	GAGGGCAGCC
16601	AGGATCAAGG	GCTAGACGGG	GCAGTGATGA	GATGAGAGCA	GGAGGGGCTC
16651	AGCTGCAGCC	CCAGGAGAGC	CTATGCCAGC	CCTGTTGACC	AAGGAGGACA
16701	GAAGCAACAG	GAGAGCGGAG	GCAGAGGGGT	GAGTGTCTAT	CGCTCAATGT

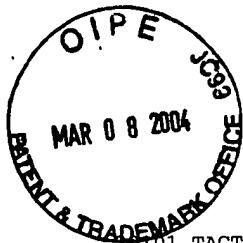
FIGURE 3E



Docket No.: CL000891
Serial No.: 09/804,474
Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

16751 ATAATCGGCA GACATTGGG GAGCTCATAC TGTGGGCTAA GCACAGGGAA
16801 GAAAGGCACA GTCCCTGTCC TCAGGGAGGT CACAGTTGAT AGGGAAGACA
16851 AGCATATGTG CTAGCTGCTA TAGAAGGGGG AACCCTGAG GGTGTGGCC
16901 ACACAGAGGC AACACCCCT TCTTGTCTTT TTGTCAGGGA TTCAGTTGG
16951 CGTCATTAGA AGTGACTGTC ACAACCCCT CCTCCAGTCA ATTCAGAAGG
17001 ACTTGTAAAG CAGGAATGAT GAATTAGCTT CAGCTTGTGG GGCACACACA
17051 GATGGAAGTA TAAGGTGGCC TCAGGAGTAA GTAAATCCCC ATGCAAGCTG
17101 TGTCTCTAGA CCAGAGCAGC ACCCGGTTCT TCCCCATTTC TAGTAAAGGT
17151 GCCTCACACA CCACAGGAC ACAATTTATG CCTGCAGAAT GAATGAATGA
17201 ATGAATGAGT GAATTCCTGG AACCTCTTCT GCTTATGTGC CACACCAGGT
17251 TGCAGCAAGC CCAGGGACAC CTGGGACTGG AATTGGGCTC TCAGGTGTAA
17301 GGACCAGGGA GCACCCACCA TTTTGCATTCTTCAGCCCTT CCTCCTCTCC
17351 TGTCCCAGCT TCAGCAATAT CCACAGAGCC CTCTGAGCAA CTCTGAGCCT
17401 TCCACAGCTG TGAGCCCTGC CTGGGCACCA GCTCTTCAGA GGGTGTCTTCT
17451 GTGCTGCTCA GCTACCTCTG AGCCTGGGCT GCCTTTGATG CTCAGGAGAC
17501 ACCCTGTAAT TCAATTAAGC CTTCTCTCCA GGGAGCATGT AATTATGTCC
17551 TATCTGGGCC TTGTAATGAC AGCCCCCTGC CACTCTACAG GGAGTTGGCC
17601 TGCTCAGTGT GCCGAACCT TTCCCTGGGA GGAAACTAAT CTGCTTAGCC
17651 CAGATTGGAC GCAGTTCTGC ACAGCACTTT TCCGAATGCC TCTGAAATGA
17701 GTCCTCACTG ACAGAACGGG CCCACTCTGG GGGAACTGAG GGTCTCTTG
17751 GTCCTGCACT GCTCTTTGCC ATACAGATCT GTCTGCCCAG GATTTTCTT
17801 GGGTGTGTAG GAGCTTGAGA GAGCTCCCTT TTCTTCTCAT GGCTAAATCC
17851 CTTGGTCTTT CCAGCCCTCC TGGGGGTAG AAGGGAGAGG GAAAAAATA
17901 AAGACTGAAC TTGTTGTTGT TGTTTTGTGT GTTGTGTGTG TTTGCCTGTT
17951 TTCTATGTTG TCTTGTGGGG AGAGGGTATA AGATTGATTG ACAGAGTGGC
18001 ACACCTCCCC TGCAATTCA TCATTGAAT TTCTCAGGTA AGATGTTAC
18051 ATTTCTCTGT TAAGATGCTC CAATTTCTCT GGTAAAGATT TCTCTGGTAA
18101 GATGCTCATG AATTGGTGGA GGTGTGGCG GGATGTGGGA AGTGTGCCTG
18151 CTCTTTCTGA GTTTTGGGGG AAGTTGCCTT AATTCTCTGC ATGACTTTCT
18201 TTGCTCCTTT GGGCTTCATT TCTGTGCAAT TAGTCTGAC ATGAATACTG
18251 CTCAGGAGG TGTTGCTTCC CACTGCCCAC GCCACTGGAA ACCAGTAGCC
18301 CAGGTTTACT CGAGTCTCTC TTTTGAGGAA CCCAAATTCT TTCATTCTT
18351 TTATGTGAGA TCTGCCCAA ATGCCATTGG CAAGCTGTAC TGGGTGAAT
18401 AGTGTCTTTC TCTCTCCAA ATGTATGTCT ACTCCAAACC ACAGGATACT
18451 ACCTTATTTG GGAATAGGGC TTTTGCAGGT GTAACCATTA ATAGTTATGA
18501 TGAGGTTATA CTAGATTAGA ATGGGCCCTA GATCCTATGA CTGGTATCCT
18551 TACAAGAAGG CCATGTGATG ACAAGACAA AGAATGGAGT GAGGCACCCA
18601 AGGAACCTCA GAGATTGCTA GGAAACACCA GAAGCTTGA GGAAGGCATG
18651 GAACAGATT TCCTCTCGGA CCTCTAGAAG GAATCAGTCC TGCTGATACC
18701 TTGATTTTGG ACTTCTAGCC TCCAGACCTG TTGGGGAGAA TACATTCTA
18751 CTGTTTTTAA CTACCACGTT TGTGGCGATT TGTCACAGCA GCCATAGGAA
18801 ACTAATACAT ACAACCTGCA CAATGCCTAC TCCAGCATTC CATAGCAAGT
18851 CAAGGGCCTC ACAATTATGT CCAAGGACT GATAGAAGAG CGACCTCTGT
18901 GCTACTTGTC CCTCAGGACG CTGACCCACA GCTCTCAAG CAGGAGTAGG
18951 CCAGAGCTCA TTCAACAAC TTTGTTATATA GGGGTTCCAA TTGTAAACCT
19001 TTTGAATTCC TGTTTGCAAG TAGATGAGGG TTGAAAAATA AATGCCACT
19051 TTCTCTAAGC CACATACCCC AATCTGTTTT GTTACTTCAT TACAGCTGTT
19101 ATAATGGCCT CCTCTCTAT CTTCCAATCT CCATAGCCCT GGTTCCTTGA
19151 TAGTTCTTTT TTTTCTTTT TCTTTTCTT AGGCGGAGTC TCGCACTGTC
19201 GCCTGGGCTG GAGTGCAGTG GCACGATCTC GGCTCACTGC CACCTCTGCC
19251 TCCCAGGTTT ACACAAGTCT CCTGCCTCAG CCACCTGAGT AGCTGGGATT
19301 ACAGGCACCT GCCACCATGC CTGGCCAATT TTTTGTACTT TTAGCAGAGG
19351 TGGGGTTTCA CCATGTTGGC CAGGCTGGTC TTGAACTCCT GACCTCGTGA
19401 TCCACCCACC TCAGCCTCTC AAAGTGCGGG GATTACAGG ATGAGCTACC
19451 GGCCTGGCC AGATAGTTCT TAAACAACCTG CCCAGAAAGT CCAGCCTAGG
19501 CAGGGGCAGC CATGAACCTG ATTGCTCATT TCTGCTTTTT GACCTTTTCG
19551 ATGGCTGAAC TCTAGGCCAT GGAAAAAAG GACCCACTGT ATAGTTAAGA
19601 GTCATTTTGT GACTAGGGAG AAAAAAAGG GCCTATTCTC CAAATCCCT
19651 TTCCCTCTGG AGTTCTCTCG TGCCTTAAAG CTTGTCTCTG GCTACAGGTG
19701 TGTACCTGCT TTATCCCAA ATGCAGGCAT GTTACCTGCT TTCCTCTGCA
19751 AAGAGAGGCA GGCCTGGCTG GGGCACAGCT GAAGATGTCA AGGCCAACCT
19801 AAGGGCAGCC AAGCTATGGC TGTCTGTGAC AAGAGGAGAG CAGCGTGAT
19851 GGGAGGGTAG GAGGCATTGA GTTCATGTCC GGGTTTGCCT CCTACCTCC
19901 TATCACTGCT TGATGATCCT ATCACTGTCT TGATGAGTTC AAGACAGAAG
19951 TTTGCCCTCAT CATTGCCACA ATAAATCAC CAATAACAGA AGTGTGAAG
20001 CAGCGATGTG AGTGGAAGCC CATATATACA CAGGGGGTAA TAGAGCAGCA
20051 TGATTAAATA TGTGGCCTTG TTATCAGACA GGCTGATTTG GAGTCCCAGC

FIGURE 3F



Docket No.: CL000891
Serial No.: 09/804,474
Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

20101	TACTTGTGG	TGACCTGAAC	TAGAGGAAGT	TATCTAACCT	TTCATTTTAC
20151	TCATTTACAT	AACATGGCTA	ATAATAGCAC	CTACCTTATA	GGGTATATGT
20201	GAGGATTGAA	TACAATTATG	CAATATAAAA	CGTTTAGCAT	AGTGCCTAGT
20251	CTAAATTCCT	CACCAGGGGT	ATGATGTACT	AGTTTTTAGT	TAAGTAAATTA
20301	GTATCCTGGA	CATGTCACAG	CCATTTGACC	TATCTGGGCC	AGCGTTTTGC
20351	TCAGGTTCCT	CCAGCAGTAA	TTGTATTCCC	TCCCCAATCC	CGGGATTAGC
20401	TTTTAGGAAG	AAACAGTTGA	TCTAAAGATA	GAAAGTCAGA	GTACTGTCTG
20451	GAGGAAGGTA	GAGGAAAATG	TCATTATCTG	GGTTTTCTTT	GATGATGTCA
20501	GGGAACATGA	CAGGCTGCTC	CCAAAGACAG	AGCAGCCCCA	GGACAGGGAA
20551	GAAGGTGACC	TTGAGGTTGA	CTCCTCTGCA	TCCCGATGTG	GACGTTATGG
20601	ACTTGTTTTT	GAGATGAAGG	GAAAGAAAGA	TGGAATGTAG	AAAGTGAAGG
20651	AGAATAAAAG	AAGTGGGAGG	AAGAAGGGCT	GGGAGGAGGA	TGGGCAAAGT
20701	CTTTCTGGTC	TCAAGGATAA	TTACATGTGA	AATCACTTGC	CAGTGGGACT
20751	CTGGGCTCTG	AGCAGCTACA	ATAATTACAG	TACAGGCTGC	AGAGGGCTCT
20801	TGGGCATGTC	TTGGAGCAGC	CTGTAGGCAG	TACTGAGGCC	TCTCTCACTA
20851	GACCCATCTC	CCAGATCACA	TAGTACACAC	ACCTTCCACC	CCCGGGCCTG
20901	TTAATGATCA	AAAAGCTTAA	ACAGAACAAT	TACAGCTTCA	GAGTGGAAAC
20951	ATACTCTGG	GCTCCTGTGA	TGAAAACCAC	AAGCCTGTCA	GGCTGGGGCT
21001	GCTTCACATG	GAGGGCCCTG	CTCTTAATGG	CCAAGTGATC	TGGAGCAAGA
21051	CCCGTGACTC	TCCCATAGTG	CTGTGGATGG	TGCTGCCTCT	CCCCACGCAT
21101	CCCCAGAAGA	GGAAGTTCAG	TAACTAAGGA	ATTAACTATT	CTCCAGCCTG
21151	ATTCTGCTTG	TCCCAATCAG	GGCTTTATAC	CTTTCTTTTT	CATCCCTATA
21201	TTTGGAGATG	AGTCACCCCT	GCCTTCATTT	TACCTAAGCA	AGGCAGTTTC
21251	CTGTAACCTA	ATGAAGTGCC	AAACAATACT	GTGATTTATT	TAGTACTTAC
21301	TGTGTGCCAG	GAATTCACGC	AGGTGTTGGA	CATTTATGAT	GTATGATCCT
21351	TACACTAAGC	CTGCAATGGT	GCAACCCAG	CCCTGACCCAT	TCTGTGCTTC
21401	CCTTTTCACA	ACACAGCTTG	TCACTAAATC	CAAGTCAGGA	ATTCCAGGTT
21451	AGGCTTGAGT	TGTGCAGAGC	CCTTAACTGA	AAATTGCCAT	GGTTGAGGCA
21501	TGATTGCAAT	CACCTGACAAC	TCCTCCCGGC	TCTACACACC	TACTTGTTCAT
21551	ATTACGCGCT	TGATCACGGC	CCCACCTGCA	TCTCTTCCCA	CTTTAGAAGT
21601	TCTTTCTCTAT	AGAACACGTT	GCTGCTGCCC	TGTTCTGGTC	ACTGATCAGC
21651	CCTGGCCTAA	CCACTGGCTA	AGCTTTGTGC	TTGCACATAG	CTGGTTGAAT
21701	CGTATGTATT	GCTGTTTGTG	TACATCAAAA	ATATAATAAT	AATATCGGCA
21751	ATTTTATGTG	TTTCAATTCAA	CATGAGGGAC	CCAGCATTTCT	TACCTTGTCTG
21801	CTTTGTAAAC	CCTGCTGCTC	TCAAATCTCC	ACTAGCTGTT	TCCTGAGCAG
21851	AAGGAGATAA	AAGGCTGGCT	CACACCCCCA	TGTTTTTACT	GGTCACAGTT
21901	ACTGCCACCA	TCCAAGGCTG	AAGAGACTTC	CTTTGTGTTA	GGGCTAAAAAC
21951	CTTAGTCCTT	GTATCTAAAT	GTCTTCTGTA	TTCTTTTCTT	CAAAAGAAAA
22001	AAGTACCCTC	TTCTGCCAAC	CCTCTCCCAT	GCCAACTAAA	CAAGCAAGCA
22051	AGCAAACAAC	AAAGAAAAGG	TGATATTACA	GATGCTGCTC	AGCCTATGAT
22101	GGGGTTACAT	CCTGTATAAAC	CCATCACAAG	GGATGTAATT	CCATTGCAAG
22151	TTACAAATAC	CATAAGTCAA	AAATGTATTT	ATTTTCATATA	ACCCACAGAA
22201	CTGTATAGCT	TAGCTTAGCC	TACTTGATCA	TGTTTCAAGG	ACTTATATTC
22251	GTCTACAAGT	GGACAAAAAC	ATATAAAACA	AAGCCTATTT	TAAATAAAGG
22301	TGTTGAATAT	CTCATATAAT	TTATTTGAATA	TTGTACTGAA	AGTGAAAAAT
22351	AGAATGGTTT	TCTGGATACT	CAAAGTATAG	TTTCTACTGA	ATGCATATCA
22401	CTTTTGCACC	ATCATAAACT	TCAAAAATTG	TCGGTCAAGC	CTTCTGAGT
22451	CAGGAATCCT	GTCTGTACAG	GGTATAAAGG	AGGAAAGCAT	CAGCTTTGGA
22501	GGCAGGTGGA	CCTGTGTTTG	AACCTTGATT	CTGCTAGAGC	TTGACAATGC
22551	ATATTGCTTT	TCTATTGCAT	AACATAATTAC	TACAAACAAC	ACATTTATTT
22601	CTCAGTTTTC	ATGAATCATG	AGTCCAGGCA	CAATTTAGCT	GCAGTTAAGG
22651	TGTTAGCTGG	GGCTGCTGTC	TTATCTGAAG	CATGGGGGTG	GGGGTGTGGA
22701	TTCCAAGGTC	AGGTGTTTGT	TGGCAAAATT	AAATTTCTTG	CAGCTATAGA
22751	ACTCATGGCT	TGCTTCTTCA	AGGACACGGG	GAGAGAGAAT	CTCTCACATC
22801	TTTTAAAGGG	TTCACCTGAT	TAGGTCAGGT	CCACTCAGGA	CAGTTTCCCT
22851	TAAAGTCAAG	GCTTAATAGT	CAACTGATTA	GGGACCCTAA	TTATATCTGC
22901	AAAATACCTT	CACCATTGCC	ATGTAACATA	ATCATGGCAA	ATAATCACAG
22951	GTCCCAAATG	TTACACAGTC	CCACTCACAC	TTGAGGGAGG	GGATTATATA
23001	GGGCATGTTT	TGCGGAGAG	AAGGAATCTT	ACAGCCACAT	TGGAATCTGT
23051	CTTCCATGCT	ATTTGACCTC	AGGCAAATTG	ACTAATCTCT	TGAAGGTTCA
23101	ATTTCTCTTAC	CTGGAATAAA	AGGACAATAA	GATCAGCCAT	ATAAGGCTAT
23151	GACAAAGACT	AAATGAGATA	GAATAGGCTG	GAAAAGTCTT	GCAGATAGCA
23201	GACACAAGTA	TATAACAATT	TCCCTCTTAC	TGTTCTTTTT	GTTTTTCACC
23251	TATCCTGCAG	TCTCTGTAC	TTCAAATACC	ATAGAAAACC	TTTCCAAGCA
23301	GCCCCAATCA	TGCCCCCAAA	TAGTCACGTC	TCATTATTCA	TAGCAGTTAT
23351	GTTCCATAAA	GTTAGCACAA	ACTCCGAATG	AGTGAATCCT	AAAGCGTTGC
23401	TCCTGGAGGA	AATACAGGCT	GCTGGTCACA	ATATTTTTAT	CAACTGATCA

FIGURE 3G



Docket No.: CL000891
Serial No.: 09/804,474
Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

23451 ATATATACCT TGTCTTATGT GTGTTTCTGC TTCAAGACAC TTTATTTAAT
23501 ATATACGTTG ATTCATTAACT TCTGAACTCT CTAGGCAACA GCATTATAAC
23551 TCCTGCCTTC ACAAAGCTTA TCTAACACAC ACATTTCTCT CTCAGGCACA
23601 TCCCAGCCTT CTTGCACTTA GGATTCAGCA GTATGCTTAA GGGCCATTTT
23651 CAACAGCAAA CTCATCAGCG CAAACACAAA CATGTGAAAA ACGTAGCACT
23701 AAAGAGACTG CAAAAAGGAC ACTGGCTTAC AGCATGGAAG CTGGAAGGAG
23751 AAGGCAGAGA ATCACCTTGT TCCACTTCAG CTATGAATAT GCAGTCAGGC
23801 CACCCAGTCA TTCAAATTTT ATAAATATAC TCTAATATAT ATATAAATAC
23851 CAGGCAGGGT TATTTTTTTC CTCAAGTCAT TTTTCTAATT TTTTTTAAAT
23901 GAATAGATAG AAGAGCTGAA GTAAGGGTCA GGAGCAAGAG CTCTGCTTCC
23951 TTTTCCCTTG CTGGGCTTCG TTAGAGAGCC ATCATCTCCT CAATATGTCT
24001 CCCAACTCTT CTAGGCATTG GATGAGTTTG CTGCAGATAC GAAACCCAAC
24051 TTTGCCAGTC ACTTCATACT AACAGGTGAA ATGTAGTGGA GGAGCCTTTT
24101 GAAGACAGGG ACTCAGCCCC CCATTAGCCT CATTCGAGAC CTAGATTCCCT
24151 GCCAAAATTA ATTTGGCTGG AACTTCCCAG CCATGGCATT GTCGACATTA
24201 CACATCTTCC ACTGTAATGT CAATTACCAT TTTATTTCAGC CGAATGCTGG
24251 AGAGTTAATG TTCAAGTGGT TAGAGCTGGC TACGGGTGGG CTGAACAAGA
24301 TGTCTTTTTC TTTCTTTTCC CTGCCTGTGG TGAAGGATTG TAACCAAGCCC
24351 TGGCTGGCAG CACTTTGAAG CTCACCCAGA GTGCTCCTGG GGACATCTTC
24401 TACAGAGCCT ATCATTTGGA CATGCTGTCT TCTGGGCCCTG TCTTCCTTCC
24451 TTTCTTCTTC CCTCCCTCCC TCCCTCTTTT CCTTCCTTCC TTCCTTCCTT
24501 CTTCCTTCTC ATCTGCTTTA AAACCAGCTG CCTTGAGTGC TTGTCTTGGC
24551 GCCCCTCATT AGTGCCATTG CAATCATCCC TCCTGCCTAC CCTGCTAACC
24601 ACAGCTTGTT AGTCCACAAC AGCAACAGCT GTGTGCTGGG GTGCGACGAGC
24651 TGGAGGGCCA AAGGTAGGGC TGGGGGACAG GGTGTTGGGA TGGTTTTCTG
24701 GGGCAGATGA GTTTATACGT TTCTTTCATG TCCCCTTCTC CCCACATAGA
24751 CTTTTATTTT CCAAAGGAA AACAGAAAAC AATGATCTGT TTGACAGTGT
24801 TGCTATCATT GGGCATCAAA CCTATCATCT AAGGGGAATC CCCCTGTATA
24851 ATCAGTCAGC CAAATGGAGC AGGACCTGTG GTTTTGTAGC TGATACAACA
24901 GGGCAGCATG TCTAGTGAGG GGGCCAGGGC TTCTATTTC TTCATTAAAA
24951 AATGAAACAG CAGACCTGAT TCCATATTTA GAGATTACAC TTAGTTGCCA
25001 CTGTGGGTGT GCAGGCACCA ACCAAACCCA GTTGGCACCG TTGTCTTTTC
25051 TCTGCAATGA TGTATTGAAT TTAATAATGG AGGTATATGA AATTCAGAGT
25101 GATTGGAAGT GAAGGTTTAG GGGCTTTGTG TAAAATTGAT ATGTAAGGGA
25151 TTTGGAAGTA GGTGAGGGAT TCTTCCCAA TACTTATTCA ATTTTGGAGT
25201 CAAATAACCA AGCATTTACA AATAGCCAAA AAAGAAATTG AAAGAGGGTT
25251 TAATCCAATA AATTTTCATG CCTCATATGA ACCACATCTT ATAATAAGAA
25301 TTATGCTTTT AGGTTTCATA CTCAGTTAAC AAATATGATT TGTGAGCACC
25351 TGGTAAGTTC TCAGGCACTAG GCTGAAAGGG GTTACCAAAT GTCTTCATTT
25401 AACAAAGTCC AGCTGAGCTC TTACAGGTAC CAGAACTGTG CCTGGGCTGT
25451 CATATGAAGA TGAATGTAAG AGTGTGTCAG GCCTTCAAGA GCTTACAGTG
25501 TGTCAAGAGA CATCAAACAA GTGAGCCAAT AAAATGATAC TGCCATTTTA
25551 GAAATAGCCT GAAATTCATG GAGTTCACAG TCTTGTTAGG AAAGTGAAAC
25601 ATAAACCTAT AAGCATTAAT AAATAACTGT TGAAGACAGT AACGGAAGAA
25651 TGCAACTGGC AACTGAATGA TATAGGTTGT GATGACTGTT AAATATCATG
25701 AAAAGAGACC ATGATGAGCT GAGGCACTCC AAGAGACTTC TTTTGGAGA
25751 TATGTTTGA GCAAAATCTT GAAGATTTAA TTGCTTTTTT CTTTTTTTTT
25801 TTTTTAGGTG GAGTCTCGCT CTGTTGCCCA GGCTGGAAGT GCAGTGGCAT
25851 GATCTCTGCT CATTGCAACC TCTGCCTCCA GGTTCGAAGC ATTCTCCTGC
25901 CTCGGCCTCC TGAGTAGCTG GGATTACAGG CGTGTGCCAC CATACCCAGC
25951 TGATTTTGT ATTTCTAGTA GAGATGGGGT TTTGCCCTGT TGGCCAAGCT
26001 GGTCTCAAAC TCCTGACCTC AAGTGATCTA CTCGCCTTGG CCTTCCAAAG
26051 TGCTGGGATT ACAGGCATGA GCACTGTGCC TGGCCTTTTT TTTTTTTTTT
26101 TTAACAAAAA AAAAAAAA AACAGGAAGT TTTCTGTAGT TTTTTTGT
26151 GTTTTACTTC CCATAAAAA TCTTTGTGTC ACATGGAGGT GAATGGAAAG
26201 AGAGGCTGTG GCAACAGACG GGAGACTTTT CTGATATCAG AACCCAGTCC
26251 CATAGACCAG AATGTATGCT TTCAATCCAC GTTGCTGGG TCCATCCTAT
26301 TGAGTGCCCT GCGGACACAG CGGGGTATGG AGAAGAGTCA GACACAGCCC
26351 CAGTCCCTAC TGAGTTCACA ATCCAGTGGA GGAGACGGAC TCAGAAACAG
26401 ATAGAGATGA AGCCATGAGA TCAGTACTGT CCGAGGCCAT GGCCACGGTT
26451 TTGTGGGAAC CCACGAGAGG GAATGACTAA CTGTGGGGAA GAAGAGGGAG
26501 AGGACCAAAA TGCAGGGGAA GTGCTCACAG AGGATAAGTA AGCAGTGAGG
26551 TGCCATGAAA TGAGTATACA CCTGACAGCC GTGTAACAGC TCAGAGCCTG
26601 GGTAGAGGGG AATAGAGCTG CTGGTTCTCT GGGGGAAGA GAGGGGTATG
26651 GGATTCTGGA ACAGAAGCAC CAAAACAGC AGGTATTGG AGCTGTTAGT
26701 GCTCAGATCA GCAATGGGTG CACAACAAA CCATTCTCCT AGGGATGAGT
26751 TCTTCTCTGT GGATGAGGGC TTCTCAGCCT GGCTTCTCCC GAGAATTACC

FIGURE 3H



Docket No.: CL000891
Serial No.: 09/804,474
Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

26801 CGGGAAGCTT GAAAAGTACT GATGCCTGGA ACCTACCTCC AGAGAGTTGG
26851 ATTTTCATTGT GTTGACGTGG GGCTGGGATA TCAGTATATT GTTTAAGCAC
26901 TCCAGGTGAT TCTGATACGT AGCTGTGATT GAGAACCCTT GCCCTAAGCT
26951 ATCCATCTGC ACTCCAGGGG TGCTCCCAGG CCCATCTGTT TGTAAATGGA
27001 CAGGTGTCTT GAGGTAACAA ATGTGCCAAG GCTCTGGAGC CAAGCACGCC
27051 TGGCTCCTTA GTGCCTACTT AGTGACCTCA GGCAAGTTAC TAAATGGCTT
27101 AAACCTTACA AATCCTTAAT TTGTAAAATG TGGGCAATGA TAGTACCTCC
27151 TCACAGGATT ATTACGAGGT TTACACGGAA TACTCTCAGC TCATAATAAG
27201 CACTTGCACA GGCTCATGG GCTAGGCCCT CAAAACCTAA CGCATCTACA
27251 GGCAACAGCC ATATGAAAGG AATTTTATAC CACCAAGTCA AAAAATCTGT
27301 GAGCACTGCT CAGAAGCAAA AGCCTGTCTC CAACAGCGCT CATTTAAGGG
27351 GTGGGCGAGC TACAGAGAGA AGAATGAGCC CCCACAGGGT AAGCTGGGGA
27401 AAGCTGGGGA CAGAATGAGA CTCAGGAAAT CACTTGAATA TTGATTATAT
27451 TTGTGCTCAA TAAATAAATA ACGAAATGAG TACAGCCCTA GACCTAAACA
27501 TTGTGGGTGA GGCAAAGGCA ATGCGTTAAT TTTGCATCCA CTGAGGAAAA
27551 ACTCTAAAAC GGTGACTTCT TTTTAAAGGG ACCAGAAGAA TCTAGATTAT
27601 ATTTAGTCTA AGTCAATACA TACGACAGAA CCTTGCCCTC TAGACTTGAT
27651 AAGAAAGAAG TAAATAAGA GAAAGAATAA AAAACCCCTC CACCAAAATA
27701 CTAACATTCA GATAATGACT TTTTAGTTAG GTCTCCTGGA GAGGAGGTTT
27751 CCTCAGAAAT GAATAGATTT CTCTTCTAGT GCAATCATCA AAAGGTAATG
27801 CATGGACTTA AGTGTGATCC CCAAGAGAAA ATCAATGACC TTTCTGTGTT
27851 TGCCTTTGAG AAAATCAGCC AGTCTATGGT TAAATTAGAC ATATTTTTTC
27901 TCCTTGGTCA AGATTAGTGG GACCAAGAAT GCACTCTTAC ACTCCTTCTA
27951 GCAAAGAATT ACCTGATGCC TTATTTTACA CAAATTTGCA AAGTTGTATG
28001 GACGTTGTAT CTTATTTTAA GGAGAACTGG TGATCAAATG ATGACTATTT
28051 CAATAGTGGT TCATTTACAC CACCACCTC ACCCCACATC CTGCTTTCAC
28101 CTGAATCTGA ACGATCATAG TCAGTCTGAG ATTCTGAAGG TTTGAAATTC
28151 CTTTTCTGAG CTCTGCAAGA ACAGCATCTC CCAAGAGAGC TCAGGGCAGA
28201 CTGCTGGGGA GAGATTGGAA ACCTGTCTTT TGCAAGTAACA TGAATTGGTT
28251 GAATGGTCAC CCTCCATATC AGGCCTGCTT CTCCCATGGG GTTCTGTATC
28301 AGCCCAACTT GGTCTCACCC CTTCTGATTT CTCTCTCCTG GCTCACATGG
28351 GGCTGCACTG GCCATTAGGT GCCAGGCTTG GCTCCGTGGA ACCCATTTGGC
28401 CAGCTGGGCT CTGTGGAGCC CTAAGGCAGG GCTCTGGTCA CTGGTGAGAG
28451 GGAGGCCATT GGAGTCACTG GGGTGGACCT ACAGACCCTA GGGTTAACAG
28501 CTAGGTGGGT GTCTCTTCA GAGAAACGGG TTACAAAGTG AAAGAAAGTT
28551 ACACTGTGAG GTCAGCCAGG GAGGAAGACA GAGAGCTGAT ATAAGATAGG
28601 TACTGATTCC CTGGGGATGT GAAAGGAGGG TAATATTCCCT AAAATGATAG
28651 CATTTAGCTT CCAGTATACA TTAATTGATT CCTGATATTC ATTAACCTA
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28801 CCCATGAACCT CTTTGTCTCT ACTGAAGAGA TCCACAGATG GAAACAAATG
28851 CTCCTACCAC ATTTATGAAC TGCTGCTTTG CAGTCCCGCT TCTGCTATCA
28901 TGCACAGGAA CTGACTAAGC TCCAAAGCCA GAGGATGTAA ATCTCCCTGT
28951 AATAAATGTA AGTCATTTAT TAGCTACATA CACTTCAGCA AGTCACCTAA
29001 CCTGCAAAAT TCAAGCATGT GAATCTTGGA TCTTTCATGT GCTAGCTGTG
29051 AGACTTTGAG AAATGTATTT AATGTCTCTT TGCTTCTTTT TCTACCCACA
29101 CAATGGGTAT AATAATGTCT ACCATATATC TTTGCAGCAA GGTCTAAATG
29151 GGGTGATACA TGCTGAATAC ATTTCCAACA GAGTCTGTGC AATGATAAGC
29201 TCTTTCCAAA TGTTAGTTAA AGCTAACCAA CTAACCCACC AACAAACCAA
29251 CCTCTTAGCC AGGACTGATG GAAGGAGTCT GTGAGAGAAT GCATTTAAAA
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29401 GGTTTTCCTG TCTTTTATAT ACAGCAGTAT TCCAGCAGAA GCCTTTGATT
29451 TAACTAAGTC TCTACTGTGT GTGTGGCTAG ATGCTATAAA GCATCCAGAG
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29801 TAGGTACTAT TACTATTTTA CAGAGGAGGA AAGTGAGGCA AAGACACATT
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29901 CCATGGCTCT AAGTCCCTCC TAGTATATCC TGCAACACA TCTGGAATTA
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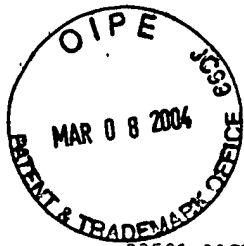
FIGURE 3I



Docket No.: CL000891
Serial No.: 09/804,474
Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

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30151 GTGAATCTCTG AAGGTATCAC AATGGGACAG GTGTTTTTTT CTCCACTCAT
30201 TTTCCTCCGAA AGTCTTTTGT TTTGTGCCCC TCCCTCTTTG GGGCATATGC
30251 TTTCAGCTCA TACCTTAATG ACATCAGAAT CTGCAATTC CTGGCAACTT
30301 TTGTGGTTAA AATTATCTCTG CCTTCCATT TTAAAGCACT AATAGCAAAG
30351 GTATTAGGTG CAAAATGATG ATAAAAATAA TTGCAATTTT TACCATTAAA
30401 AGTCATGGCA AAACCACAAT TACTTTGGCA CCAGCTGAAT ATTTTGAAAC
30451 TCCCTACTCT GATGTTAACC AAGTTCATGA TTCAAAGAAC TTGCAGAGGG
30501 GTAGGGGAAT TTCAAGGGAA AGGGGGAGAT GCCTGGGGTT GTACACACT
30551 CTGCTTTTCA TCCTCTATTG ACATGTTGGT TATTTGGAGA TGGTATTCAG
30601 TTCCAATATA GCCCTCAGT CACTGTAGAC CCTCTCAAAG GGGCAATCAT
30651 GTTCCCTTAA GGTCAGGTCC ATTCTCTAA CCCCTCTCCC GGGGGCATCA
30701 CCTTGTTTGT TCCAGCAGCT GTCTGGCCAA ACTCACACCT CCTCCTCACC
30751 CTCTAGCCCT TATGATCTGC TTTGGGGAGC CATGGGAACC CCTAGTTTCC
30801 TCTTTTATCA CCACCTGAGAT TCACAAGTAA CTAAGGTCAA GCGGGGGCTT
30851 CATTGCCTTT TGTCAGATAC CTTACGCTAC TGTTCCTCCT CGCCTGGCTG
30901 GCTCCACACT CCAGCAGACC TTCTGCTGGG CGAGAAGCTG CAGGCCTGAA
30951 TCTCTGTGTT CTCTATATGGC CCCAACTCTT GGGATTACAC TAGCTCTTGT
31001 AAGAACTTCA TGCTCTGCTC TGCTCATTTT GATGCCATCA AAGAGGGCTT
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31101 CCTAATCTTT CTGAACAAAT TTGCTGGCAC CCCTTCACCT GGCTTTGCCG
31151 GGGTAAGAGG GGGCACTTCT CTCCTTTCCC TCATGAAAGG AGGGAGAGAA
31201 GCGCAAAATC TCCCTACTAG TCAACAACCT AGGCACCCCT CCTTCTCTCC
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31451 CATCCCATTA AATATGTAAT GTGTATTAGC ACAGCGCCTG GCACTGGGCA
31501 GGTATTTTCT AAGTGATAGC CAATGCGAAG CCTACTTTAT TATTTCTCTC
31551 TTTGCTTAAC CTACAAGGTG TCTAAGACCA TTTGTTTGTG CACACATAGT
31601 AAGATAAACA GCACCTGAGAC TGTGGTCTTT TCTGCCCTGT GTCTTATCC
31651 CACCTGGGAA TCTGGAAAGC CAAGCCTAGA CACACTCGTT CCACAAATGT
31701 TTAAGTAAAGC TTGTCTTATT CAAAGCACTG TACAGCTACA AAGACCATCT
31751 TTTCTGAAGT CCAAACCAGG CCACATGGTT GGAATAACTT CAAGTATGGA
31801 GACCAAGATC AAGGTGGTT GTTGTGAGCA AAGCTCTGAG TCCACACCTT
31851 CCAGGAACCT ATAGTTGATG CAATGGTGGG AGAAGTCTGA ACCTGGATTC
31901 AATCTGCTTG ATTCGATGTA ATGGTGCAGT AGGCAGAGCC ATGAGTTCAG
31951 AGCAGGAAGA AACCCTGGT TCAAAGAAGC ATCTGTCACA TCGAAGCTGC
32001 TTTATAGACT GTTGGGAAGC ATGCATAATA ATTTATTCTT TCTTCTTCT
32051 CTTTGGTCAA CAAAGATTTC TTGAGTCCCT ACTATGTGCC AGGTACTCTT
32101 CTAGGTACTG AAGATGCAGC AGTGAACAAA GAAGATACAA TCCCTGCCCA
32151 GCGGAGCTTA CATTCTAGTT ATCGAAAGTC CCTTCTCTAG TGGCTGCTCT
32201 CTTTATTTGA GAAACCATGG GCTGTCTTCC TCCCATCCTA GGGCTGCTGG
32251 CTCCACAGAG GCACACAGTC CATCAGGATG CTCTGCCAGC CACCCACCCA
32301 CTCAAGACCA AGGTTACGC TGTCAGTGTG AGCAGGGACA CTCCCGTCTC
32351 TGCTACCTCC TTTCTCTCTGA AAACAAGATC TCAGGGAACA TCTGCCATCC
32401 ATTTTCCCTC CCTGGGGAGT GACAGGAAAG GTGTATGGAG GAGATTGAGC
32451 GGAGTGATGG ATTGAGGCAC TGTGAAAGTG AATCATTGCC TGACATGGGA
32501 ATGAGGAGAC TTGCTTAAAG GACAAGCCAT GCTAAGTCAT CCATCGTTCT
32551 CCCCTAAGGA GGTGAATTGA AGTTCCTCAT TTTCCAGGG AGCCAAATTA
32601 ACAAGGTGCT GGGAGATTTC CAAATTAGAA AAAAAAAAAA AAAAAGGCAC
32651 CACAGCTCT CAAATCAGAG AGGCTGTTGA GTTGTTTTTT GGAGCAGATC
32701 ATGTATTTTG GCATCTAACC TTGAAATAGA GGAGAAAGCA TGGAAATTTCT
32751 GCTGAAAACT CATCTTCTC TGAGCAGGTG GTACAAATAA GCATCGTTGT
32801 GTTCTCAGAG GCAGGAACCA CATTTCACCT TTGATACCAA CTACCTCAAT
32851 AACCACAGTG CTGAATTTTC ACAAATGCG AATTAGGAAA TTGTGCTCA
32901 TTTTACAATT TGGTTTCCCT CAGGATTCTT TTTAAGTAGC CAGCTACCCC
32951 AGTACTTTTG AAATATGACT TGCTTATAAA AATTGATAG GCTTGGCAGC
33001 GTGGCTCACA CCTGTAATCC CAGCACTTTG GGAGGCCGAT GTGGGGTGA
33051 TCACGAGGTG AGGAGTTCAA GACCAACATG GTGAAACCT GTCCCTACTA
33101 AAAATACAAA AACTAGCCAG GCATGGTGGC ACATGCCTGT AATCCAGCT
33151 GCTCGGGAGG CCAGGCAGCT AGGCAGGAGA ATCACTTGAA CCCAGGAGAT
33201 GGAGGTGCA GTGAGCCAAG ATCATGCCAC TGCCTCCAT CCTGGGTGAC
33251 AGAGCAAGAT TTTACTCAA AAAAAAAAAA AAGATATATA AACAAGTTT
33301 TATAATATTC TCAATATGAA CTAGTAGAAA AAAAGCATGT GTTTTATAGT
33351 CTTAGAGGCC TGGTTCCAG TTTTATCTCT GACTCTAATG AGGTATAGTA
33401 TTACCTACAT TGATTAGCCC TTCTATACTT CATAGGAGAT GCTCCAAGAC
33451 TGCTAGCTTT CTTCATTCAA TAAAGAGAGA TATAACAGGA TGGGCCTTAA
```

FIGURE 3J



Docket No.: CL000891
Serial No.: 09/804,474
Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

33501 AAGTAGCATG CATTTCCTTCT TTCATTCACT CATTCAAAAT ATTTTCATGC
33551 GTGAAAATGC CAAGGATGTT TGGTCAACCA ACTCTTCCCA GACCCTGGCT
33601 GTGAGCCTGG CTTAGAACAA TTCCATTTTA ATGGTCCATG CCCTCAGGCA
33651 CTGTATTTCT AGTAGAAGAG CAAGGTAAGA AAACAGCTTA AAAAGTTAAA
33701 CAGTTTTAGG TTGAGATGGG TGTGTGAGA AAAATAAGCA GGATGCTTTG
33751 AACCTATGCA GGTAGGAAGG TCTGGAAGG CCTCTCTGAT ATGGTGATGG
33801 TTAAAGCAAA ACCAAAAAGA CCAAGAACAC ATGGAACACA TGAAGGGCTG
33851 GAAGAACAGT GTTTTATGGG GAAGGACTAG TACACACAAA GGCTGCAAAAG
33901 GCGAGTGGGC TCATTATGTT CTAGAACATG CCAAAAAGCG GGTGCAGCTG
33951 GAGAGGAGT AAGATGGCAC AAAAGGTGAG TGAGGTGGAC AGGAGCCTTA
34001 TCACGCAGGC TTACACAGGC TCTCAGAAGC CCTGCGTGTT GGTFTCTTGG
34051 GACTACCGTA ACAAAGCTCC ACATACTGGG TGGCGTAAAA CAACAAAAAT
34101 GTATTGCCTC ACAGTTCTGG AGGCCAGAAT TCCAAAATCG GGTGCTGGCA
34151 GGGCTGCGCT CCCTCCAAAA CCTGTAGAGG AGAATCCTTC CTTGCTGTGC
34201 CCTAGCTTCC AGTGGGTGTC TAGCAATCCT GGGCTGGGTG ACTCCAGCTC
34251 TGCCCTTGTT GTCACAGGGC GTTGTCTTTG TGTGTCTCTG ACTTCACATA
34301 GCCCTCTTCT TCTTCTTTTT GTGTGTGTCT GTGTGTGTCC ACTCTGAGGC
34351 ACAGAAATTT TTATTATTTT ATTTATTCAT TTATTATTTT CATGATAAA
34401 CATAATAGTT ATGCATAGTT TTGGGGTACA TGAGATATTG GATACATGTG
34451 TACAGTGTGT GATAATCAAA TCAGGTGATG TGGAATATCC ATTCACCTCC
34501 AAACATTTTC TCATTTCTTT GATTGGGGAC ATTATAATTC TTCTAGCTAT
34551 TTTGAAAATG ACAATAGATT ATTGTTTACT ATAATTTCCC TGCTGTACTA
34601 TCGAATACTA GAACCTTATTC CTTCTGTTGA GGGTGTACTT TTGCACCCAT
34651 TAACCAACTT TTCTTTATGT CCTCCTTCCC ACTTCCCTTA CCAGCCTCTG
34701 GTAACCACCA ATCTACTCTC TACCACCATG AAATCAACTT TTTTTTTTTA
34751 TAGCTCTCAT ATATGAGTGA GACTATGCAG TGTTTGTCTT CTGTGCCTGG
34801 CTTATTTTCA TCAACATAAT GACCTCCAGT TCTGTCCATG CTGTGCAAAA
34851 TGACAGGATC TTATTTATTT TTTTATGGCT AAATGGTATT CCATTTTGTA
34901 TGTATATCAT ATCTTCTTTA TCCATTATC CACTGATGCA TATTTAGGTT
34951 GATTCCATAT CTTGGCTATT GTGAATAGTG CTCCAATAAC CATGGAAGTG
35001 AAAATATCTC TTCAACATAC TGATTTCTTT TCTTTTGGAT ATATACCCAG
35051 TGGTAGGATT GCTAGATCAT ATGGCAGTTC TAACTTTAGA TTTTAAAGGA
35101 ACCTCCATAC TTTTTTTCCA TGGTGGCTGT ATTACTTACA TTCCCACCAA
35151 CAGCATATGG TACTCTCCTT TCTCCACATC CTTGCCAGAA TTTGTTATAT
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35601 AGCTCAACAC ATGACACCAT GGTAGGGAAC TTTATTTCTAC TTGCAAGTTC
35651 TGAGTGTCTT ACGCAGGTAG ATGGACTGGT GTGATGTATG CTTTAAAGAC
35701 CGCTGTGTGA AGATGGCCTT AGGGTGATGA GGATGGAAGT TGGAGACTAA
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35801 AGAACTAAGT TGATAGCAGT AGAGAGAAAG GAAAGTGGATG GAGATTAGAC
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36251 ATCAGAGAGA ACATGCTCAG GACAGAAAGA GCAATGTAGG ACAAGGCAGT
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36651 ATTCTTGGA CTAGCTCTCC CAAGCCCCAG AATTGTGCTT CTATCAGAGC
36701 TGGGTTTTCA TCAGAGTCTC CCCTTTATCC TGTATCTCTG TTGCCTTAT
36751 TTGTTTGAAT TCCTGCCAGG TCAGCTGAAT TTGGGCATTT GGGGTGAAAA
36801 ACCATCAAGT GTGGCATCCT GGCTTTGGCA CCTGGCACAG TGTGACCCCA

FIGURE 3K



Docket No.: CL000891
Serial No.: 09/804,474
Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

36851 CTGGTCTCTC CCTCACATTT GCTGTGGTCC GTGCACGGAA TTTGTCAAAA
36901 GACCTCTCTCA GTATCAGCTT TCCTGCAGCC TCAATGCACC TTGTCTTGAA
36951 TAGGATATTA CCCCCCAAGA GTATATTAGG GCATTTTCCT ATGCCAGAAG
37001 GGGTCCCTTAG GCCTCTTGCA GTTTTTCCTG GGTGACAGTG AAGGAGGAGG
37051 TGGCTGCAGA GCTTACTGCC TGTGGACTGA CCACCCAGG GCCTGGTGTC
37101 AGGACCATTT GTCCAGCCTG TTGAGTGAAG GTCATTCTGC CTAACCTGTA
37151 AGCACAAAGAG AGAGTTCAGC ATCATTTGCA TCCTATTTTA TTGTCTTTCT
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37351 TGTTTGGTCT CAGGGGCTGC AGCTGGAAG ATTTTCTAAC TAATACTTGT
37401 TTTATGGGGG TGTTTTTGGG GGGGTTTATT GAGTGTCAA CCTGGCAGTA
37451 AATTAGAATC AGAAGACAAC AGTTAGTGAT AAGCAGAGAA GCCAAGGATG
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37701 AGGAGCAAAAG AGCTGAATTT ATCTGGTTAA TTTAGATAAC CCTACCCCT
37751 CTTTTAACAC CAGATTGCCA GGATCATGAC CTCAAAAGGC TACCCTGAAA
37801 TGCAATTGAC AAATGGGATG AAAGATTTC CGTTTCATCC ACATTTGCCT
37851 CCTGAGCTAC TTACAGCAGC AGGTCACCGC AGCCAGAGCC CACCTGCTTG
37901 CCCACCATG CCGCACACAG ACAATGCTGC TTCTGTGGCT GGAGGTCGGA
37951 ACACCTCAGC ACTATCTCAG TTTGGCTGCA GATCCTCTGT GTGCTTGGTA
38001 AACAGGTTTC CTCATCTGTA AAATGAATTG GCTCTTCCAC AACTTTTTTA
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38401 GGTTCCTGCT TTGCATGATC AAGGGACAAC TTGGAAGGTC TCCAATCACT
38451 CTATCCCCC AGATGGAAAT GTATTCACTT ATTTCTTGGA GATGTCTGTC
38501 CTCTCCCTAG TTAAAGACAG ACCTTGACCC ACCTCCACTT CCTTCTCTGT
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39001 CTTGGAAGTT AAATTATCTA CCCCAGGCC ACAGCTGGA ACCTAGGATT
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39951 GTGGGTGGT ATCCTGAGAA ATATCATTTG TATCTGCATG TGCTGTCTCA
40001 CACACACTAG CTCACATGTG CACACACAG TGCATGCACA GGACAAAACC
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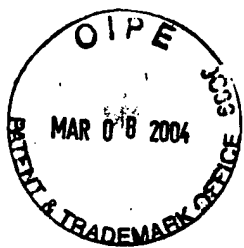
FIGURE 3L



Docket No.: CL000891
Serial No.: 09/804,474
Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

40201	TCTAAAATGC	ATGCATAGGC	GGGCTCAGTA	ACTAACATGC	AAATGTTTAG
40251	GGTCTGAAGC	TCCTACCGAT	AATCTTTTCAG	ATCTCAGAAT	TCCAGCCCCCT
40301	TGTGCTGTTT	TGGGTGTGCT	GACACAGACG	AAGCAGAGAA	CAGTAGAATA
40351	AACAGCTCAG	TAAACAATTC	ATTGAGGGAA	AGAGAGTGAG	AAGATTCACT
40401	GGACAGCTAG	AGGAGGAAAT	ACTGCTGGTG	ACTATGGAAG	AAATTTGCCC
40451	TAAGGCCCTGC	AGGCAATAGC	TTGGTCTTAT	TTATCCTGGT	GTCCACCCCT
40501	CTCCTCCAAC	ACATACTGCC	CTGGCAGGTA	CGTAGAAGAT	GCGTGAAAAT
40551	ATCTTTTGAA	TTGAGCTATG	CAAAAAATAC	TGGATTCTGC	CCTCCAAGAG
40601	TTTACTGTTT	AGTTTCACAG	AAAGCACATG	CCCTCCTTTC	TCTGCCTCTT
40651	GAAGACTGAC	CTATCTTTCA	AGGCCACTGG	CCCAATTCTG	TTTTCTAAGT
40701	AAGACCACTG	AGTCAGTGGT	GACCTCTCCT	TCTCCCTAAC	AAAGTCTGAT
40751	TTACTTGAAT	ATACAACTAT	CTCCCTCTTG	GCCTGTGAAT	TTCTTGTGTT
40801	AGGGAACATA	TCTGATTTAT	CCTTATCTCT	TCCACAGTAC	CTGGTGTAAT
40851	ATGCCCCAAT	AATATCTTGA	AATATTCATG	AAGCTTACTA	AATGCTCTGC
40901	CTTATGAGCC	ATGAAATATA	AAGTGCCTTA	AACTTTGTTT	TTCTCTTATG
40951	TAAAATAAGG	ATAATAATAA	TGACACCCCT	ATAGGATTGC	TGCAAGGATT
41001	AAGTGTGATA	ATATATATAA	AACTCTTAGC	ACAAACACCT	GGCTCACAGG
41051	AATAGTATGC	ATATACCATAA	TGGTAACCTC	GAGGGCAAGT	TTTCTCAGAG
41101	TTATTTAGCC	CTCCTTCACC	CTGTGTCCAG	GAGTGCAGAT	CAGAATGGTC
41151	AGATTCCAGG	ACACCAAGTT	TTCTGTGGGA	GCTTCCCTAG	GAATATAACT
41201	AAGGAATTTA	AATCAGGTTT	AGTCTCATGCT	GTTACACTCT	CTTCTCCAC
41251	TCAGGCATTG	GGTGTGGCTT	TTCCAAGCTT	GAGAAGGGTG	TGATCTGAGA
41301	TGGGCTTGGG	TATAGAGGGG	AATTATATTT	AGGTCTACCC	TGTATAGGAA
41351	AAAGTGCTTT	CCCCAAGTCT	CCCTGGCCTA	AAGTATAAGA	GATATGTGTT
41401	GGGATTTAGA	CCCAGAGCCC	AAGCCAATAA	TGGGACCCCT	TTCTCACATG
41451	TGGCTACCTC	CTGCTATCAC	CACAACAGCT	ATCATACCCA	TAACACAAAC
41501	AGAGGCCAAT	TAACGTGGTG	ATAATTGACA	AATGTCAAGA	CATCCTACAT
41551	TGAGGCACAC	TGTGCGTTTT	GCGTGAGCTT	TTAAATTGGT	AGGGAAGGAA
41601	AACTTTTATA	CCTACACCTA	TCATGGAAGG	CAGAAGGTAA	GAGCTAAAAT
41651	AAAGGTATGC	CAAGAACAAA	GGCAGGAAAG	AAGGGTTTTA	ACAACCTGAG
41701	GCCTGATCCA	TTGATTAGTG	AAGAGGAAAC	ATGTTCAAAA	ACCACTCTAT
41751	AACCACCTTC	TCCAAGTTTT	TTATAATTTT	GCTTCTTCGG	ATATCTTCTC
41801	ATCATAGTCT	TAAATGCCAT	CAAATTAAC	GAAAAATGCT	AAAAATGCAA
41851	CCAGCTTAAG	AGAATGGGTT	AGATGGGAGA	TGGCTTTGTT	AAAGAAAGTCG
41901	GTCTTAAAGC	AAAAGTAGGG	CTTTGTCTATG	GATGATGGA	AGGAAGGACA
41951	TTTTTGTGTA	AGAGAAGAAA	GTGCAGGGCC	TGTTGAGGAA	GGATGAGTA
42001	GTAAATATATG	GCTAGAACAG	GGTGCAGAGG	GGAAGAACTT	CAGAGAATGA
42051	CCAAATTAAC	AGGTGAAAG	GTGTAGACAT	TATAGGCAAT	AAAGCAACCA
42101	CAGAGGTTTC	TAAGCCATAG	GGTGACATGA	TAGATCTGTA	TTCTAGAAAA
42151	GTAGTTTTGT	CAGCAGTTGT	GTCCATTGAA	AGGGACAGGA	TAAGGGAGAT
42201	AGATAAGAAAG	ACATGCTATG	ATGATAACTA	GATTTGGATA	CCAAGTGGTA
42251	TGGTGGAAAG	CAATGAGAGA	ACAGGGTCAC	AGATGAATGA	CTGCCCAATT
42301	TCAATCCATC	ATAACAGGAT	GTATAGGATT	GCCCTTAAGT	AAGATGGGGA
42351	ATCCAAAAC	GAGGAACAAG	TTTGTAAAGT	TTTGGGGGCC	AATGATGAAT
42401	TCCATTTGGG	ACATGTTGCT	TTGGATATAC	CAATGGGACA	TTTATGTGAA
42451	AATGATCTCG	GAAATCCTAT	CCTGGAATTC	AGGATAGGAT	CAGAATGAGG
42501	GACACAGTTT	ATAAGGTAAA	CAGAAATGGAG	GTGATATAGA	AGATAAGGGC
42551	ATAGATGAGC	TTACCAAAGG	GGAGAGTTTA	GAATGAAAAG	AAAAGACCAA
42601	AGGCTAAGCC	TGTGCTATTC	TTTCTCCTCA	CAATACGCTT	CAGACCTGGG
42651	CACAAACCAT	CAGTGAGTGT	CATGATAACA	CTACTGTGGG	CAAAATCCCC
42701	CTCTATAAGG	GCCTGATTTT	CTCCTCTATA	AAATAGAGGG	TTGAACAGGG
42751	TGGTCCATAT	CCTGTTAATT	GTGTTTGGAG	AGCACACAAC	AAACCAGCTA
42801	CTATCCAAAG	GGGACATCCC	GAGGCAGGAC	TAAGCAAAGG	AAATCCAGCA
42851	CAGGGAAAAC	ACTTTCTGGT	GCTGGTCCCA	GTTAGGCAGC	GTTTCAATTTA
42901	ACCCATCACC	ATCACCATCA	GTAGCTTTCA	GCTGCTACTG	ACCACACTTA
42951	TAGGAAGAAA	AACAATTAGA	ATGGAGAGCT	AACTCTTTGG	AAATGGTCAA
43001	AGAACACGGG	TCTACAAAAC	CGTCAATAAA	GCGCTAAGAT	GCCTGGGCGG
43051	GGTCAAAAAG	TCTACCTGGG	CGGGGTCAAA	AAGTCTACCT	GCTCAGCATA
43101	TGGGGCCAG	ACATCTGACC	TTTACCAACT	CCACAATAAC	CACCTTCATCT
43151	ATGGATCCAG	TCTTGGTATC	ACCTAGTCGC	TGTTTTCAG	TAACAGAATA
43201	TTTGGTTCTC	AATGGTAGGT	GACTGGAATA	CAGCTTACTT	TCTCCACCC
43251	CTACCGCAA	TCCTTTCTGC	CCCCTTATAG	TTTAATTTGC	TTGTAAATTA
43301	CTTGGGAATA	CATTTGGGAG	CCATTATAGG	GAAATAGAAG	GCAGACATGA
43351	TGAACAGAAT	GCAGGGTGTT	TTTTATTACT	TCACATTGTG	CTCAACAATT
43401	AGGAGGAATT	CTAGAAAGCC	CTCCAGTGG	CCAGGAATTG	GTCATAGCAT
43451	GAATAAACTC	AATATAGGTT	GAGTATTCCT	TACCCAAAAT	GCTTGATACC
43501	AGAAGTGTTT	TTGGATTTTG	GATTTTTTTT	TTGAATATTT	GCATTATATA

FIGURE 3M



Docket No.: CL000891
Serial No.: 09/804,474
Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

43551 CTTACCAGTT CAGCATCCCT AATCCAAAAC TGAAATCTAA ACTGCTCCAA
43601 TGAACATTTT CTTTGAGTGT CATATTGGCA CTCAAAAGGT TCCAATTTTG
43651 GAGCATTTTC AATTTTGGGT TTTGGGATTA GGGATACTCA ACCAGTGGTA
43701 GGTTTGGGAT GATATCAGCA TGCTAAGGTC AAAGAGACCT AGCTGGGAAG
43751 GGTGGGAGGA ACATGGAATT TTCATTCTCT GGGCACCCCT TGAACAGTCT
43801 TACTATTAGG GCCCCAAATT TGTCTAAGT GTGTGTGTGT GTGTGTGTGT
43851 GTGTGTGAGA GAGAGAGAGA GAGAGAGAGA GAATTTCTTT TCTTCCTTTA
43901 TATTCTAAGT TCCTCAGGAC AAAATTTTGG GTTTCTTTGT ATTCTCCCTG
43951 CAGCTCCTCA TGTAGTTCTA AGCAAATAAA GGAATTCATT AGGTCCTTGA
44001 TTTCAGAAGC CTCCCAGTTC TCTATGTAGG AGGAATCTTA GGGTGGCAAG
44051 ATAAGTTGAG GGACTTTTCT TCAAGCACAT TTCACAAGTA AGAGAAAATG
44101 TTGACTGTGT ATATCTAAGA ATGGGTGGGG CTCATATGATG CCCCCCTAAG
44151 TTACTCTTTA CTATTATTGA TTGATTGATT GATTGATTGA AGAAGCAATG
44201 TTTTGATTAG TGAAGAAGT AATGTTTCCA ATGGCTACAG CAGACTGGAG
44251 CAAAAGAACA AAATGAAAGA AAATACATTA GGCTTTCCAT TTCTTCTAAT
44301 TCTGGGGCAT CTGATGAAGC TTTGGATCCC CCAAGGTAAG AGCTGGACTC
44351 TGCTGGTGAA AACTCTTTAG GAAAAACAAA AGAATATTGT CAGAATCTGA
44401 TGCACCTTAG AAATGATGCA GCAGAACTGC TTTATTTTCT AAAAGGTGAA
44451 ATGGAGACCC AGAGAAGCAA AGTGATTGTG TCATGATCAT ACAGCTATTC
44501 AGTAAAGCCA GGACTTCTGT GATCCACTGT CCTTTCCTTA AACCAAGTGT
44551 TCTCAACCTT GGGAGCTTTA AAAAAGTCTG AGTGTTGGAT CCATCTCAGA
44601 CTAATTAATG CAGAACCCAT GGGGATGAGG CCCAGACATG AGTGGGTTT
44651 TTGTTCTTTT TTAATAAAAA GCTCCCTAGG AGATTTCTCA AAGAACTGAA
44701 AATAGAACTA CCATATGATC CAGCAATCCC ACTTTTGGGT ATCTACCCAA
44751 AGGAAGATAA ATTATTATAT AAAAAAGATA CCTGCACTCA AATATTTATT
44801 GCAACACTAT CCACAGTAGC AAAAAATATG AATCAACCTA ACTGTCCATC
44851 CATGGATGAC TGGATAAAGA AAATGTGTAT ATATACACAC ACAATGGAAT
44901 ACTATTCTAT CGTAAAAAAG AACAAAGTCT GTCTTTTGCA GCAATATGGA
44951 AGGAAGTGA AGCCATTCTC TTAAGTGAAG CAACTCAGAA ACAGAAAGGC
45001 AAATTTCCAC TGTCTCTACT TACAATGGG AGCTAAATAA TGCATATGCA
45051 TGGGCACAGA GTGTGGAATA ATAGACATTG GAGACTCGGA AGGGTGGGGG
45101 GAATGGGAGA GGGTCAATGA TGAAAAATTA CTTAATGAGT ACAACGTACA
45151 TTATTTGGGT GATGAATACA CTAAGAGCCC ACACTTTACC ACTATGCAAT
45201 ATGGCCATAG AACAAAATTG CCCTTACACC CCTTAAATTT ATACAAATAA
45251 AAATAAATAA ATAAAAAGCTC CTTAGGGCTG AGAACTACTG CTCCTGTCTC
45301 ATGGGTCCCC AGCTTTTATT TAACTCAAAA TGAGTTTAGA AAAATTTATG
45351 AACCCATTTA AAAATATTTA TTGAGTATCT CCTGTGTGCA AGGCACTGTG
45401 TTATGTTAAG TGGCTGAAGG GAAATTAGAC TGGGGAAAAA GACAAGGTCA
45451 TGGCCTAGGT TTCAAACATA TATAAAGAC ATAACAAATA AGAAAGGATG
45501 CCACCTTCTT CCAACCTCA TCCCTCTTCC TTTTGACAGT TGCAGATGTT
45551 GCTAATTCAT TTTGGCACCC TTTTCTCTG ACCCAAATAT AGTCTTATAA
45601 AACCTTTTCA AAGTCGGCTC TAGGCAAGTA TCACCTTTTG CTCTTTTGGC
45651 ACCAGATCTC TTGAACACTA TTTACTGGTT TTGGAAGAT TATACATGTA
45701 TGCTGAGAGT TGAATGACTG AACAGAGCAA TAATAAGAGT TAAAGCAAGA
45751 AAGACAGGCC TACAGGAGAT GGCAGAGGGT CTTGCCTGTC AGGCATTGAT
45801 TTTGAACCTT ATTGCAATAG CAATCAAGAA CTATTGAAGT TTTTGACAAA
45851 AAGACTATAG ATGAGATTAA CCTGGTTACC GTAAAGGACA AAGTGATTGC
45901 AGGTAGAATG AGGCCAGCTT CATAAATGAA TCATCAGGAT ATGAGAAGCA
45951 AGGGCTTGAA CATGAGAGGC CATAGTGGGA ATGGAGGGAA AGGGACAATG
46001 TGAGAAGCAG TGAAGGAGAA GGGCTGATTG AGTAAAGCAG TGGAGAAGAC
46051 AGTGAAAGAT GTCAGATGAC TACCATGTTT GGCGACTGAG TGAGGGAAGA
46101 GGTGGTGATG ATATTACTGA AGAGAGAGGC AAGGGGTGGT CACTGGATT
46151 AGAGCAGACA TTATCAACTT GTGGTGTCCA GACATTTTAC CCTGGGAGAA
46201 ACCTGTTCTG AAGTGGCTTC AGCATCTCTG AGGTCAGATT CCTAGTTCTA
46251 CTATTTTCTT ACTGACTGAA ATGGAAATCG AGTAGGCAAG GCTTTTGATT
46301 TGTCTCAGTG GTCTCTCTG TAAAATGGGG GTGTTTATAT CCATAGTCTT
46351 ATCAGAGGGC TATTTGGGGG ATTAAGTAAG ACAAGTGTGG CAGAGCTTTG
46401 TAACTGTAA TACACTGTGT ACAATTGGAT AATTATGGAT TCTTCTGACT
46451 CATCCACATG GATGTCTGCT GACCTGGGG GACCGAGGCC TGGGAGGGAG
46501 GCCAGACCTG GAAATGGAAG CTTGAAATG TTCTCTGTAG AAAAGATAAT
46551 TAACATTGTA GGATGGTTAA GTCCCTCTAA ATAGATGTCA GAAAAAATGG
46601 AGGTCATGTA GACAGAATGT TGGATAACAC TACTTTGTAA AATATTTTAT
46651 CTTATTTCCA TTATAAAGA AAAAAAGCTG GGCTGGGCAC GGTGGCTCAC
46701 GCCTGTAATC CCAGCACTTT GGGAGACTGA GGCGGGTGGG TTACCTGAGG
46751 TCGGGAGTTC AAGACCAGCC TGGCCAACGT GGTGAAACCC TGTCTCTACT
46801 GAAAATAGAA AAATTAGCCG GGTGTGGTGA CAGGTGCCTG TAATCCTAGC
46851 TACTCGGGAG GCTGAGGCCG GAGAATTGCT TGAACCCAGG AGGTGGAGGT

FIGURE 3N



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Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

46901	TGCAGTGAGC	CAAGATTGCA	CCATTGCACT	CCAGCCTGGG	CGACAAGAGT
46951	GAAACTCCAT	CTCAGAAAAA	AAAAAAAAAT	AGACAGGAAA	ATAAAAAAAG
47001	CCACCTCACA	TAGTCTACTA	CCACCAAACA	CATCATTAAAC	ATTATATTTC
47051	TTTATTCCAT	GCTCTTTGTT	TTTAATATAA	ACAATTACTT	TTAAGGGAAA
47101	ATGAGAAAAA	GAGAGAGTGA	TAAGACTTTA	TTTTAAAAGG	TGGAATAATT
47151	CTAACCATGG	AGAGTATTTA	TAAATTTTTT	TTTTTTTGAGA	CAGAGTCTCG
47201	CTCTGTCAAC	CAGGGTGGAG	TGCAATGGCG	TGATCTCAGC	TCAGTCAAC
47251	CTCCACCTCC	CGGGTTCAAG	CAATTCCTCT	GCCTCAGCCT	CCTGAGTAGC
47301	TGGGATTACA	GGCAACCGCC	ACCATGCCCT	GCCAATTTTT	TTTTTTTTTT
47351	TTTTTTTGGA	GATGGAGTCT	TGCTGTGTCG	CCCCAGGCTG	GAGTGCAGTG
47401	GCATGATCTT	GGCTCACTGC	AAGCTCCGCC	TCCTGGGTC	ACGCCATTCT
47451	CCTGCCTCAG	CCTCCCAAGT	AGCTGGGACT	ACAGGCGCCC	GCCACCGCAC
47501	CCAGCTAATT	TTTGTATTTT	TAGTAGAGAC	AGGGTTTCAT	TATGTTGGCC
47551	AGGCTGGTCT	TCAACTCCTG	GCCTCAAGCA	ATCCTCCTGC	CTCAGCCTCC
47601	CAAAGTGCTG	GAATTACAGG	TGTGAGCCAC	CGTGCCAGGC	CCATAAAATA
47651	TTTTTTATAG	ACAAGTGAGA	GCAGAAATCA	CAGGTTCTTA	TGAGCAGGAA
47701	AATTTTGAAG	GTCATCTACT	CTGAACGTTT	TTTTGTTTGT	TTGTTTGTG
47751	TGTTTGTGTT	TTTGTTTTGT	CTTAGTTTAC	ATTTATTAAA	TACCCGTTAT
47801	GGTCCAGGCC	CTTGGCTAAG	CGCCATCCAT	GCAATATATC	ACAAGATATG
47851	CCCAGCAATC	CTAGGAGGTA	GGGTTTATTA	CTACCCATCG	TACAGAGGAG
47901	GAAACTGAGT	CATAGAGTTT	TAGTGTCTTG	ATCCTGGTCA	CAGAGCCAGG
47951	AAGTGCAGAG	GACAGCCAGG	CCAAGTCTGT	CTGACATCAG	AGCTCATCAG
48001	AGCCCTCCCC	ATTGTCTCTG	AACCAGTAAA	GATGGAGTTC	TTCTACAGGG
48051	GTGGTTGGGG	GACAAGGACC	CCATGGGTGT	GTCTGAGTCA	GAAACATCTG
48101	CGAGTGGGCT	GAGAAATGAG	TCTTCTGTGA	AAAAGAGCAA	AAGAAAAAAT
48151	GGTCCAGGAG	CCAATAATCA	TTGTCCATCT	TTGTGTGAAT	GTATGGTGTG
48201	GGAGTGGGAG	CAATAAACGA	TTCTAAGGTC	ACACAGAAAA	GATGCCACCT
48251	TCTCCAATCA	CATACCGCCC	CTCGTCCCCC	AGTTTCTCT	GAAATAGCTC
48301	TTCTTTTGGC	TCTATCCTGG	CTTCTTCACA	CAGGGGTGTC	CAGTCATCTC
48351	ATCCTGGTGG	GACAGGGATA	GAGCTGTGGC	AGTGGAGATG	AGGAAGCTCG
48401	CCTCCTAAGT	GAGTCTGAAT	TCTTAAATAT	GGAGCCACTC	CATAATCATT
48451	TGGAGTGAAT	ATTGGGCCAT	GGCCCTTTTT	CTTGCCAGCT	GAGCTATGAA
48501	AAAAGGATGT	CCTAAGACCA	GAGGCTGTGG	GACCATTCCC	AGCCCTTGCA
48551	GGAAATCAAAG	GAGCTGACAG	AATTGTTTGT	TTGTTTTTTT	CACAAATTGA
48601	AAAAAAAAT	GTAAAATTTT	TGAAAAGAAA	GCCTCATTGA	AAAGAAATCC
48651	CTCTCCCCAG	CTGGGCTCCC	AGGCAGCCTC	CTGCAGAAC	TCCTTAGCAT
48701	TGCAGAGTTG	TTCCCATGGC	AACCGAGTAA	GGGGCTTTTT	GTTCCTCTTA
48751	GAAGATTGAA	TCCTTTCAAC	CAGAAGGTAA	CCACTGGTTC	TTCCCCACAA
48801	TCCACACTCC	AAACCCCTTA	CCCTTATTTG	ACTACATGAC	TAGTTTGTGA
48851	TTTATGGATT	TTTTTATGCC	TAATTGAAAA	AGGCTAAATA	TACAGAAACT
48901	GAGGCTGAAG	TGGTTTAAAG	AGGCAACTGG	CCCAGTGGTT	TCTCAGCAAC
48951	CACATGTCAA	AGCTGTGGAC	GTTAGACTTG	ACGAGAGCAA	GACATATCAG
49001	AATCTGTAGT	AGGAGCATCT	AGTCTCCAG	TTCAATAGTG	TCCACAAAAG
49051	AAATCCAGAG	GTTTTTGAAG	CAAGGAATTT	GGGTGGCACT	GCTGTGAGAA
49101	ACAATCACCT	GGCTCCTCCA	TGGGGCATAG	AGTGAGATG	CTTCTTCAAA
49151	TACCCCTTCC	TTTCCAAGGC	CATGACTCAG	AATGACTGGC	GTAGGGAGCC
49201	TGGAGCTGAT	CTCTCAAGG	AAGGGGAATC	AGATGAGCTG	TTTAATCTCT
49251	CTTGTAATAA	GAGGGGTTAT	GAGACCATAG	GCTCATTTTG	GGGGGGGTCT
49301	AAAATGCAGT	ATTTTTTGAA	CTGATATGGG	GAAAAAAGA	CATTTCTGAA
49351	TTGTTGTCAT	GTTGCAGATT	CTGGGCCGTT	CCAGCATAAG	CACCTTCTTT
49401	AGAGTACTTG	GCTTTGTGAA	GTAGTCCTTA	TCCCCTCCTT	CCACTATTTT
49451	ACATCAAGTT	AAAATAGAGG	AAGATGCCTA	GAAATGGCCG	TATAGACAGA
49501	GAAAACTGCA	CTAAAACTCC	CTCCGTCATG	CCTGACTCCT	CTCTAGACTA
49551	TGACCATCGA	GGGGCCAGAA	ATCATATCTT	AAAGATCACT	GTGCCTCCAG
49601	TACCCAGCAC	GGTGTTTAAT	AAATGTTTGT	TGAATGAACG	AACTAGTAAA
49651	ATTTTCAAAT	CATTAGAGCT	GAAGTATCCT	TTAAGATTCT	TTAGTCCCTC
49701	ATTTTACAGA	TAAGGAAGCT	AAGGCTCAAG	ACATGTGTGT	GCTTGGCCAA
49751	AGGCACACAG	CAAGCTAAAG	GCAGAGGGAG	GACAGGACCC	GGCTGTCTCA
49801	ACCCCTTGGC	TCTTACACTT	CCTGCAGCAT	TTCTAATTCT	TTTACCATTCT
49851	TTGCGAGGGA	TTTTACAGGC	ATGTACTGCT	AGAGCCGAAA	TAATTAGAAG
49901	CCTCTTACTA	CTCATCAGAA	AAGCTATGTG	AGCCCTTAGG	GAGGACACAG
49951	CTAGCCTAGA	CTCTGCCTCT	TTGCCCTCTG	CTGCTTATTA	GCAGAATGTA
50001	AGTGGTGTG	TATGATGATT	AGTGTAAGTA	GGATGGGCAA	ATGCACACCT
50051	TTCCACCTTT	CAAACCTCAGA	AGTTGTAACC	AAGAGTCACA	CTGACTAAAC
50101	ACTCCAATTT	CCCTTTCTGT	TTTTCTTAAC	ATATGTCCTA	TTTTACCAAT
50151	AATAGCCATG	GTATAATTAGT	CATGGTATTT	CACGCTAGCT	GCAGAAATAA
50201	CTTCCAATCT	TCATTGGCTT	ACTCAGTGAA	AGTTTATTTT	TTACTCATAT

FIGURE 30



Docket No.: CL000891
Serial No.: 09/804,474
Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

50251 AAAGTTGAAT GTCCTGGTCA GGCAGTTATC TAAGCCACAA CTTGGGGATG
50301 GGGATGCAGG CAGCTTCCAT CGTATTGGCT CCACCATTC A GGGATGGCAG
50351 AGTTGCTCTG GCATAATCCA ACCAATAGAG GGGGGAGGTT TGGCACTTGT
50401 CAGTTAACCA CCTAGCCTAG CATTGACACA CACCACTTCT ACATACACTC
50451 CCCTAGTCAT CATTAGTCA TGTGGCCCAA CCTAGATGCA AAGGCATCTG
50501 GGAAATGTAG CCCCTATCTG GTCAGCAACA ACTTTGCACT TGAAGGGGA
50551 GCCTGAATCG TTATTGGTCT CCAACACATG TAACTAGCAA TTATACAGAA
50601 CGTTATTGTG CAGGCAATGT GCCAAGAATT ATTTTCATTTA ATCTTCACAA
50651 CAATCCTATG AGGTTATTGT CCTCTTAAAC GTATAGATGA AAAAGTTGAT
50701 GGTAGAGATA TAACTTAACT AATGCAAAAGT TGCATAAGTG GTTGGTAGCA
50751 AATCCAAAAT TCAGGCTGTT CTCTCCAGAG CTCAGGCTCA TGATTGCTGC
50801 ATTCTACTGC TTTGAGCTTC TGATCTGAGA AAATGCATCA GCCACTAAGT
50851 AGCCTGTGTA GTCTCCAGCA ATTACTTTCC TCCCTCTGGA TCTTGGTTTC
50901 ATTCTCTGCA AAGCTAGGAT GTTTAACTGG ATAAAATCTG ATGTCACCTG
50951 CCAGCTGGGA CATCATATGA TTCTCAGGGT AAGCATATCA GGTGGGTGGG
51001 GTCCCCAGTG ATGCTTGACC ATAGCAAAGC CCTTTCAAAG GTTCTTAGC
51051 ACACCACATA AATGGAAGCC TCACAGTGTC CATGTAGGAG AAAGCAGGGC
51101 AAAGTATTTC ATCTTACCCA ACAAGAAAT CAACATATAG TAAAAAGAGA
51151 GTGTTTTCCC ACCAAGGCCT CAGATTGACT AGCGGTAGCC TTGGAATAG
51201 GACTTTATTT TGTATAGTAC TTTTGCCACC AGGGTGGGGG GGAAGAGT
51251 GCTTCTTTGC CCCAAATGCT GGTTCATAA AACCTAAAGA TGTACATGG
51301 AAACACACCA TTCCCCCAAT CCCCCTCAA AACTACTTG CACTTAAATG
51351 AAAGAGTAA GCTGTAGGAC TTTACTGAGC AGTGTCTGT GGGGTCTTG
51401 CACTGCCATG CTCTTGAGGG GCTCGAGGTG TATGAATTCC CCAGCATTAC
51451 TTCTCCTTAG AGGTTTCAGA TGAGCAGTAT GAGCTCCAAA CTCATGCTAG
51501 ACCCAAGTAA AATCATGAAAG AACAACTCTT GAATGACTTT ATACAGCAAA
51551 GCTATATTTT ACTGTGTCTT AGAAAACCA TTGTGTGTGT TTGTGTGTGT
51601 GTGTACAAC TCTTGTGTTC TTTCTACCTA TGTCCCCCTG ATGCTCCAC
51651 ACAGAACATC CCAAATCCA TTTCAGGTTT CTCTTGAGAT TCCCAAATTT
51701 GGAAACAGGA GATGCTTCAA AGGCCTCTTG GAATGTCTTT TGAGGCTTTA
51751 TATTGTGATA TGTTGGACAG ATGGTTAAGA AACAGAAGAA GAGCATCACC
51801 AAAAGGATTT CTCATTTTAT GTGGAGATCT ATTAATATTT GCCACTAGCA
51851 AAGGCATTCT TTCTTGGGAA TGAATTATGC CCCTAGAATC AGATTGACCC
51901 CACAGAAACA ATAGAGAATA AATAGAGACT TGAGCTTAGA CCTTACAACA
51951 TGGCCAGAGC TGAAAAGGCT GAGCTCTAGG CAGAGAAGAT GCAAGAGCAG
52001 CTTCAGAAGA CCTGAGAGCT TATTGGGTA GGTTCTCTG GTGTAAAGGG
52051 TTCTTGTTCA CGTTTTCTTC CAGAATAAGA AAAGAACGCA AGGTGTCAGA
52101 GGTGAGTGG AAACAGGGTA TAAAGCAGGA GCATTGGAA TCTGCCCTTT
52151 GTAGCCTGGC CCAGAGAGCG TCAGGCAGCT TGTGGGTAA TAAGTAACAC
52201 TGGCATTTTT CCCATGGTTC TGTCTCTTA AAGAGCAGGA TACATAAAGG
52251 GATTACAGAT TCTTGTGGT TTGGAGAAGC TTCTTTTAA TACCTTGTTT
52301 TAAATTTTAC CTGGAATTTA TTTTAATCAG GTGTGGTAAG ATGCACAGAC
52351 ATGGAGATGA CAGTCATGAA GGAAGAAATA TTTTACTCA CAGATCCCTG
52401 TAAATAGGAA GCATGGCCTC CATGCAGGCC AATGGGGAAG CACCAGGGTC
52451 AGCCGCAAGG CAGAAGGAGC AAGAGGAAAA CATGGACAAG AGGCTCTACT
52501 TGTGATTCAG TGGCAAAGAA TGGGAGGGGC AGAGTAAGCA GGTTTAGGAT
52551 TATCGGGTTT GAATGACTTG ATTGAGCTGT AGGGTGTAGA GACTGCCTCT
52601 ACTGTCTGGC ACCAGGGGTA ATTAGGGCAG CTGGATAGTG GTCTGGAGTG
52651 TGAGAGCTCC CTAAAGGAGG TGGTTGGAGG TGTAGGTTT GGATTGGTTG
52701 ATCTGTATAT GAAAGGTGCA CGTGCAGGTT GAGTCTCTA CTATCACTAG
52751 AAATTGGCTG GTCCCAGGAG AAGTAGTCTC TCTAGAGACA GCAATGCCCC
52801 AGATGTCAAA GCATCAGAAA ATACAGAAAA AAAATTAAAA GCATGATTAA
52851 TTCATACTCA CAGGTCAGT TTTTGTGTAG TTAAGAGCAA CCTAAAGAAG
52901 TTGATAACTC GTGTTGCAGG TCAGGTTTCC CAGAAATCAT ATTCTCAGAT
52951 GAAGATTTTG ATGAAGGAGG TTTAATGCTC AAATAAGCC CTAAGGCTCC
53001 ATACCTGTGG AGGAAGTGAA AGAAGCCCAA CTGGGCACAG AAGGTGGAAC
53051 ACAATGCCAG TCACACAAAG ACCTCAGTGG ATCTTGGGCC ATGAGGAGCT
53101 CTAAGCACAG ATGACCCTTC AGAAATGTCT CCAAGTGGGG AAAGGAATCA
53151 TGCTAGTCAC TGGATGTGGG CTTCCTCACTC CACCCCATGA GGGCATGACC
53201 TTAAGTGAGA GAGCTCTTTG GACACAGGGC ATCCTAAGAG GGGCACTCAG
53251 CAGCCACATT GGGCACCAAG ACTCTCAGCA GCTAGAAGAA GAAGGTATAG
53301 TCCCAAAGGG GAATCTGGGC TGCACACCTT AGTATCCATT AGAACTGGAA
53351 GTAGGCTGAA TCCCAAGCAG GGATCCCCTG GAGAACACAG GTAATTTTTT
53401 AAAAAATCAA GCTATGTGTC TGAGGCTATG TGGTAAGACA TCTCAGTTTT
53451 CTGCTAGGAA AAGCCACCAA ACCAGATTGG CTTATTCATG TTGAAAAGTC
53501 TGAGAATCAC ACTCAGATGT TGTTGATAAT TCTGCTTGA TAAATTTTAT
53551 CTATTGGTAT GCTTGTGATA TAGCAGTACC ATTGCTAAAA ATTCATGCG

FIGURE 3P



Docket No.: CL000891
Serial No.: 09/804,474
Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

53601 GAGAATCCAA TCTGCATCAT TTTCTTTCTC AATGATTTGT TTTTAAAGGC
53651 AGAGGTTCGG CTGTGCCCCCT TTAAACCTTC TGTGCAAGTG CCAGCTTCCT
53701 TTCAAATGGA GAAGCAGCAG CCCTGTCAGA AAGGGTGGCT GGAGCTCCCC
53751 TTTTGTGAGA GGAGGAAAAC TTACTGGGAA TTACTGTTC GAGAGCCACA
53801 CATGAAGGCA TACCACTGCT TCCTCTGACC TTCCAGCCGG TATATTAATG
53851 ACATACTGTT GTACCTGAGA ACCAATGATG AAGTGGGTGA TGTGCCCTGGC
53901 ACCTTAAAGG CCTGGGCTTG CTTTGACAGG GGAGATGATA CACAACATGG
53951 CTGTTAGCCA GCTCTCACTG CATCTGGAAG CACCATGTTT CTTAGAGCCA
54001 AAGTTCTCAA ACTGTGCTTC CTGCTGGGCT CCACAGATCC TTCCCCTTCC
54051 ACCCTGCACA CAAAGCTGCA CACACATACA CACACACACA CACACACACA
54101 CACACACAGT GTTCTCAATG CTCGCCATTT AGTTAGTATG CACCAAATAT
54151 GTGTAGTATC TGGTTCCACC CCTGGCCTCT CAGACAATTA TTAGTATTTT
54201 TGGGAGCGGG GAGGAGAGTC AGGAAGACCC AAGCGCCATA TTTATTATTT
54251 CCCCAGCCAC CCCGCCCCAG GCTACATCCA AGTTCAAAGT CTATGACCCC
54301 CTCTCTGAGC TTTTCAGCACT ACCTCCCTTT GTGGGGGAGG GGGGTGCCAA
54351 TTCTCTTTCT TCTCATCATC TCCTGTTGCA AAATAAAAGC CTAGGCATTC
54401 CTTTGAGAAA CTTGGGCTTG GCATTGGAAG GCGTCTGACA AAGGCTTTGT
54451 TAAATGAGTG GAGGAGGGGA CCGTCTGGGA GATACTTTT CAGGTGGCAT
54501 AGGACCTCCG CTTCTTCCCT TCTCACATGA GAAGGAAGAT TTTTCTAGAA
54551 ATCTACAGGT GTTTAAGCTG GAATGTGCCT CAGACATCAT CTGGTTGGAC
54601 CCTTTTCAAT TGCAGATCTG AGGCCTAGAA AGATTGGTA ACTTGCCCCA
54651 GCTCACAGTA GACAGAATTG CTCAGTGAAA AGTCCAGCAT AAATACCCCA
54701 GCCCATGTGG CCACTGGCTG TGTGCTCAGC TAGTGAGGCA CACTTACTTC
54751 TTAATTTGTG CCACCCACTT TTCAGGCTCC CTTAGGACAG CCTCCACCTG
54801 CTCCTACTGT GCTTCCCATC GTCCCTCTCC TCAGGCACAG GCTGAGGAGT
54851 AATAAGAGCA CTGCTATATG GTCAGGCCTT ACTGTGTGCT AGGAATTGTG
54901 CTAAGTACTT CCTATGAAT TTTCCATTTAT TCTTTATAAT AACTTTGTAA
54951 AGTTAGAGCC ATTATTCAG AAGGGAAGAC CGAGGCAATG GGAGTCAAAG
55001 CAAAGAATTT GGGCTTTTAA CCATTACACT ATTTTGCACA AGTAGCCAGT
55051 AATGAAAAGG CTGCTATCCG GAATCATCTT TGCAAAAGGT AATTTCCTTA
55101 GCACTTTATC AGAAGAAGGG GGCTCCTTCC TCAAATTCTG AGGGAAGAGA
55151 AGTGGGGAAG AAAAGATGAC TGAATCCAAA GCTCGGGCAG GGAAGACACA
55201 TCGAGTGCCA AGTGCCTGCT GCTGGGGTCT AGTCTGACT CAGCCGCCAT
55251 CTTCCCAAGT GCTTCTGGA ATTCTCTCCT CTCGTGGGGC CTCAGCTCCT
55301 TCATCTTAGG AAAGAAGGGT AAAGATCTAC AGACAAATTG ATCTTTAAGT
55351 ATCCTTAGAG CACTACCATT TTCAGAATCT AGGATTCTAT ATCCTTCCAA
55401 TTATCTCTGT GTAGGGAATT ATTTGGTCTG TCTCCTGATT AGGGAGCCGG
55451 ACATCTGCTG CTCGACCCCA CCTGGCTCTG CAAAGTCCCT TGTGTATCTG
55501 CCCTGCTGG TCACGGGAGA GGAAGAGACA AGGAAACACC ACCGCTCCGA
55551 CTCTGTGGAG CACGGCTCT CTCCACCCCA CACACCCGCT CAGGAGAGGA
55601 GGAACCTGCA CATTGAGTC TCCTCAGAGC CTCTGCAGAC TCCCAGCAGG
55651 GGTCTGGCTT TCCTCTCAGG TAGCACAGTC ATGCTGTAAA CTCATTTTGG
55701 TCTTGTCTGG TATGATAATG CGTTTAGTTG AAGGGTTATA TAATTGCAGA
55751 GTCGATGATG ATCTCTAGGC CAATTAAAG TCAAAGCTAT TTTTAATGGA
55801 ATTGCCAGAG GAGGGCAGGG ATGGGGCAGG GGAGGAGAGA TGGTTAGAGA
55851 GTGCTTTTGA AACCAACCTC CAACAATTT AGCCATTGCA TTTCCGAACC
55901 TGAATTTTCA GGGCAGAAAT TGGACAATGC CAATTAAATC AGAGCAGGTG
55951 TATGTGAGAG CTGGGTTTCA CTCTCTGCAG CTACAGTTT ATTTTGAATA
56001 CTGTTGCAGG TAGTGAAAAT ATGACTAGGC TGAATAAGAG ATCTCAGTCT
56051 ATTTCCAGCT CAGCCAAAAG CCTTAGTGT GTCCTTGATC AAGTTACTTC
56101 CCCTATCCAT TTCTTACCT GCAAATGAGA AGCTTGAACC AAATATCTCT
56151 AATGTCCCTT TCAACTCTAA AATCCTAGAT GATCCTCAGA TGTCAACAGT
56201 GCTGAAGCCC AGCACTGTAA GATGTCAGGT GGTCCGCAGA GGGTGAGGCT
56251 CTTCTGCTC AAATTATTTT TTCCACCCAA GACTCCTCAG TTACCTCTGT
56301 ACACAACCTT GCAGGCCCAT CTAAGTATCC AATAACCTGG GGCTTTAGTT
56351 TACAAATTTT CTTGGGGAAG AAGGTAAAAG GGATCTAGCT TTCTGGGTTA
56401 TGAATGCCAT GTAGGGAGGG CATGGTTTGA GTTAGTCTCTG GTGCTGGGAG
56451 TTCATGAGAC TTATTCTCAA ATCTTCAGAG AAGAAAATTC CGTGAACACC
56501 TGGGAACATC AGGAAAAAAA AAATGTCCCC TAGGCTACTG TCAGGTTAGG
56551 CTGCTGGTTC TGATTTGACC TTGAACCTGC TATAATTGAA CAAGATAAGC
56601 ATGTGACCTA ATGAATAACT TTAAAACTTG TAGTTCCTT CAGCACAGAA
56651 GTGGCTCTCT GAACCAATTT TAAGCAATCC TGGCTCTATC TGTGCATGTT
56701 GATTTAGCCT TGGTTATAG TGTTAACAAT TTAGTGATT ACCTCATTTT
56751 TAATCTCTCT TTCCCTTTAG CAGGATCAT TTTCTGTGT TAAGGGATCA
56801 ACATTGAGGT AAGAAATGGCT AAATAATAGC ATCTTCTGGA ATACAAATGA
56851 CTTTATAAAT AAAAGAAGAT AAAAGGAAGA AGTAGGATGA TTTCTCAGCT
56901 CTAATACACT TAGCAAATGC CATATGCTTT CTCCTGCGTG TACTGGTCAG

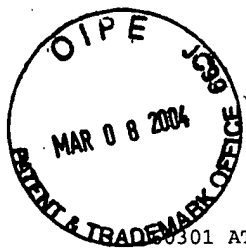
FIGURE 3Q



Docket No.: CL000891
Serial No.: 09/804,474
Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

56951	GCCAGTTCTA	GATACAATCA	TGCGTGTCAT	AATGATGTTT	TGGTCAACAG
57001	TGGATTGTCAT	ATGTGACGGT	AGTCCTTTAA	GATTATAATA	CCATATTTTT
57051	GCTGTGCCTT	TTCTAGGTCT	AGATATGTTT	AGATACACAC	ATACTTACCA
57101	TTGTGTTCCTA	ATTGCCTACA	GTTTCCAGTA	CAGTAACCTG	TTGTACAGGT
57151	TTGTAACCTA	GGAGCAATAG	GCTATACCAT	ACAGCCTAGG	TGTGTAGTAG
57201	GCTATACCAC	TTAGGTCTGG	GTAAGTACAC	TCTATGATGT	TTTCACAGTG
57251	ATGAAACTTC	CTAATGACAA	ATTTCTCAGA	ATGTATCCCA	GTTGTTAAGT
57301	GAGGCATGAC	AGTACTATAT	CTCAAGACTG	TCCCAAGCT	GAAGTCTCCA
57351	GTGGACACAA	AGACCAATGT	ATTTAGTTGA	ATCGTGGACC	CCAAAAGTTC
57401	AAGTCCACCC	AGAACCTCAG	AATACAAAGT	CAAGTCCACC	CAGAACCTCA
57451	GAATACAATT	TTATTTAGAA	ATAGGGTCTT	TGCAAAATGTA	GTAAGTTAAG
57501	ATGAGGTCAT	ACCAGAGTAA	AGTGGGCCCT	AAATCCAATA	TGACTAGCAT
57551	CCTTGTAAGA	AAAGGAAAAG	GAACACAGAC	AGGGGAGAAG	GCCATGTGAG
57601	AACAGAGACG	TAAGCTGGAG	TGAGGCATCT	ACAAGACAGG	GAACACCAAG
57651	GATTGCCAGG	AGCCACCAGA	AGCTAGGAAG	AAGCAAGGAA	GCATCCTCTT
57701	CTGGGGCCTT	CAGAGACAGG	ATGGCCCTGC	TGACACCATT	GTTTCAAAATG
57751	TTTAGCCTTC	AGAAGTGTGA	GACAATAAAT	GTATATTGTT	TCAAACCATC
57801	CAGTTGGTGG	TACTTTGTTA	TAGGAACTA	ATACATTCAG	GATGGAGAGG
57851	TGTCTGGGAA	GCCCATGAGA	ACAAATGGAA	AGAGCCAGAA	GCCCTCAACC
57901	TTGGCTCGTC	TACAGCCCAT	TTTCTTCATT	CCCGCATCCA	GGCTTTGAGA
57951	TGACAGGAAG	CTGTGAAACC	TGTGAATTGT	CTCCACCGCA	AATCCTGCTC
58001	CTGGTCCCA	CCTGACTGT	CAGGTTGTG	TGGCAAGGCT	TTCATGCCTC
58051	TCACTGACTG	CCTAGTACGT	CCCCTCAATG	ACTGGTCCAC	ATCTTTCTCA
58101	CCTTTCTCAT	GCATGGCCCC	AGATCCACCC	CAGTGCCTCG	TCCTCAAGAG
58151	GTGATTTATT	CCGAGACACT	GATGAGAGCA	CTGTCTTCC	TGTGTCTGAG
58201	GGAAGGCATG	TAACCTTTGC	TTATCTTCAC	CTGTGCTCTA	GATCCTGACC
58251	TTCTCTGGCA	ACCTCAGGGA	CCTTGCACCA	TCCATTCTTC	TCGCCTAATG
58301	GCGAGACTCA	GTCTCTCCCT	CTCCCTTTCC	ACTCTCCCTT	GCCATTCTTA
58351	GTATCTTTCT	ACAAGCAGGT	CTTCCAAAGT	ACTGCTTGAG	GTCTGAGTTG
58401	GAGGGAACAT	GCCTCTACCC	TACTAAAAG	AGAAATTCCT	CTGCAGAAGA
58451	CCCAAGCTGA	CTGACAAATC	CCTTTACTGC	AACTGCAGCT	CTAGCTCCCA
58501	CCATTTTCTCT	GTACTTACTC	TCCTGCTCAG	GTTCCTTGGC	ATTGCTGATG
58551	TCTTTTCAGCC	TTTGTGCCCT	GGCCCTTTTC	CTCCTCTCCC	CTCATCTAGC
58601	ACTACCTGTC	AAAATCAGGG	ACTTACTTTA	AAATTTATCC	CAAATTATCA
58651	TTGCCATCAT	CTCCACTGTC	ACCTTATCAT	ATGTTGAAT	AGCGTTTCCA
58701	TTTCCCAAT	GTTTTTCGCAT	GCACTTTCTC	AATTGAGCCT	TACGAATCCT
58751	AGAGCTGAGA	AGGGTAACAA	TTTATGAGTC	CTTTGACAAA	TGTGGAAACT
58801	GACATCACAG	AAAGTAAGTT	GCCAGCCGAT	ATGTCACTGT	CTTCAAACTC
58851	TTCTTTGTAT	TTTTATTATC	TCCCATTTA	TTCTGCCTCT	TGTAATGATT
58901	ATTTCTACAT	TGGTCATATC	TTTCTTCTG	TACTGATCTT	CGCTTATGAT
58951	AACAAATAAT	AATAGTTTAC	CTTTGCATCA	CACTTGATGG	TTTACAAAAT
59001	GCTTCAAATG	CAACATGGCC	CTTGATCCTG	AAGATATTTA	TCACTTAAGA
59051	ATCATTATCG	CCATTTTAAA	ATACAAATTT	ATTACTTGGG	CTAAATTTTC
59101	TTATTATAGT	TGGGATAGGC	CTTCATCCAT	AGGGTGAGTG	CAGTATTTGT
59151	GGACTGTCAT	GGCAGCTTAA	ACATTTAGTA	CTTGAAAATC	TGATGCATTG
59201	ATCATCAGAG	AAGTGCAAA	CAAACTACA	ATGAGATATT	ATTTACCCCC
59251	AGTTAAAATG	GCTTTTAGCC	AAAAGACAGG	CAATAATGAA	TGCTGACGAG
59301	GGTGTGAAGA	AAACGGAGCT	TTCATACACT	GTTGGTGAGG	ATGTAAATTA
59351	GTACAACCAC	CAGGGAAGAA	AGTTTGGAGG	TTCTCAAAA	AACTAAAAAT
59401	TGAGCTACCG	TGTGATCCAC	CAATCCCCT	GCTGGGTATG	TACCCAAAAG
59451	AGAGGAAATC	AGTATATGAA	AGAGGTATCT	GCAGCCGGGC	GCGGTGGCTC
59501	ACGCCTGTAA	TCCCAGCACT	TTGGGAGGCC	GAGGCAGGCA	GATCATGAGG
59551	TCAGGAGATC	GAGACCATCT	TGGCTAACAC	GGTAAAACCC	CGTCTCTACT
59601	AAAAATACAA	AAAATTAGCC	AGGCGCGGTG	GCGGCACCT	GTATTTCCAG
59651	CTACTCGGAA	GGCTGAGGCA	GGAGAATGGC	ATGAACCTGG	GAGGCGTAAC
59701	TTTCACTGAG	CCGAGATAGC	ACCACTGCAG	TCTGGCCTGG	GCGAAAGAGC
59751	GAGACTCTGT	CTCAAAAAAA	AAAAAAAAAA	AAAGAAAGAG	GTATCTGCAC
59801	TCTCATGTTT	GCAGCAGCAC	TGTTTACAAT	AGCTAAGATT	TGGAAGCAAC
59851	TCTAAGTGCCC	CTAACAGAT	GAATGGATAA	AGAAAATGTG	GTACATATAT
59901	ACAATGGAGT	ACTATTCAAT	AAAAAAAAG	AATGAGATCC	AGTCATTAGC
59951	AACAACATGG	ATGGAAGTGG	AGATCATTGT	GTTAAGTGAA	ATAAGCCAGG
60001	CACAGAAAGA	AAAACATCTT	ATGTTCTTAC	TTATTTGTGG	GATCTAAAAA
60051	GCAAAACAGT	TGAACCTATG	GACATAGAGA	GTAGAAGGAT	GGTTACCAGA
60101	GGCTGGGAAG	GGTGGTGGGG	GGCTTAGGGG	GAGGGTGGGA	TGGTTAACTG
60151	GTACAAAAAC	AGAAAGAAATG	AATAAGGCCT	ACTATTTGAT	AGCACATCAG
60201	GGTGAATAA	GTAATAATA	ACGTAGCTGT	ACATTTTAA	AAAACTTGAG
60251	TATAACTAAA	TTGTTTGCAA	CTCAATGGAC	AAATGCTTGA	GGGGATGAAT

FIGURE 3R



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Serial No.: 09/804,474
Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

60301	ATGCCATTAT	TCATGATGTG	CTTATTTTCAC	ATTGCATGCC	TCTGTCAAAA
60351	CATCATATGT	ACCCAATAAA	TATATACAAC	TACTACATAC	CCACAAAAAT
60401	TAAAAGTAAA	AAAAAAATTT	AAGAAAATAA	AAGAACAAAA	GTAGATGTAT
60451	TCTACATGTC	TCCATATTGT	AAAAC TAGAA	CCAGTCAGTT	AAC TTTAGAG
60501	GAAGGGGATT	GTGGACTTGA	TATAAAGACA	ACTTTATAAT	ATGCAGAGCA
60551	GCCTAATCCT	ACAATTGTC A	AAAAGTATAG	TGGATTCTTT	ATTTATTTGT
60601	CCATGATATT	ATAGAGGTCA	TTTCTGCTTT	AACAAGTAGG	TGGGAGATAG
60651	CTAGGTAGGA	TATATTTTGT	TCTTATTTTT	TATTTTAAAA	TATTTGGGCTG
60701	TGGCTGGACA	TGGTGGCTGA	AACCTGTAAT	CTCAGCACTT	TGGGAGGCTG
60751	AGGCAGGCAG	ATCACCTCAG	GTTAGGACTT	TTCGAGACCA	GCTTGGCCAA
60801	TATGGTGAAA	CCCCATCCCT	ACCAAAAATA	CAAAAATTAG	CCAGTTGTGG
60851	TGGCATGCAC	TGTAGTCTCA	GCTCCTTGGG	AGGCTGAGGC	AGGAGAATTG
60901	CTTGAACATA	GGAGGTGGAG	GTTGCAGTGA	ACTGAGATTA	CGCCACTGCA
60951	CTCCAGACTG	GGAAACAGAG	TGAGACTCTG	TTTTATATAT	ATATATATAT
61001	ACACACACGT	ACATATACAT	GTATATATAT	ACACATTATT	ATTGAAAGCA
61051	GCCAAAGAAA	AATAACACAT	TATATATAGA	GAAAGAGCAA	ATGATGAGTG
61101	ACTTTTATATG	TATATATATG	TGTGTGTGTA	TATATATAAT	GTGTATATAT
61151	ATACATATAT	ATATATAGGT	TAAGAACCCT	CAGCACATGT	ATACCTATGT
61201	AACAAACCTG	CATGTTTCAGC	ACATGTATCC	CAGAACTTAA	AGTGAAAAAA
61251	AAAAAAAAGA	ACCTTCTGCA	TGCCAGTAAC	TGTGCTAAGT	GATTAGGATG
61301	CAATGGTAAT	AAAAACAAAG	TCCCTCTCCT	TAAAGAATTT	TCTATTTAGA
61351	AGGGAATACT	GGTAAATAAA	AAATAAATAT	ATAAATTACA	ATTTGTGAAA
61401	AGTGCTACAC	ATGAAAGAGT	GCTGAGACAG	ACATCAATGG	ATAAACTTTA
61451	GATTGAGAAG	GGCTCTGACA	AAGCAACATT	TAAGGTGCAA	CCTGAGAGAA
61501	TAGAAGTTAA	ACAGGCAGAT	ATTGGTGAAA	GAGCAGTCTA	GGCAGAGGGA
61551	ACATCATTTG	CAAAGGCCCA	GGGTAAAGAA	GATCCTGGTA	AGGAAATGAC
61601	AGTGGAAGAA	GGTTAGTGTA	GCAGGACTGT	GGCTAGGGCG	GAGAGGCAGG
61651	GAAGTAGTTT	AGAATTTCAA	TGCAATAGGA	AATATGGAAG	ATTGAAGGCA
61701	GTTTTGCATT	ATAAAATAAT	ATGATTGCTA	TTTTAAAGCT	ACTTTATCTA
61751	AGGATGGAAG	ATTCTTAAAT	AACTTGTTGT	ATACTTGGAC	CACACCACCA
61801	TGAGCAGCAG	CTGCTCTAAT	TCAGAGCAGT	CCTCCTGCCA	AACGCTGTGT
61851	GAGACAAAGC	TCTGATTCAT	AAAGGGGCAT	TTTTCTCTGG	GAGAAAACCA
61901	GTGATCCATC	TGTAGAAGTA	CCTGAGTCTA	AGGGGAGACG	AAGCAGCAAA
61951	AGAAATTGGC	TTGTGAGGAC	AGGGACATTG	TAAGAATGAA	AAGAGGAAGG
62001	GAGGTGCTGA	GGCCTTTTTC	TTTTTTCTTT	TTCATTTTTC	TTTTTTTTTT
62051	TTTTTGAGAC	GGAGTCTTGC	TTTGTGCCCC	AGGCTGGAGT	GCAGTGGCGT
62101	AATCTCAGCT	CAGTGCAACC	TCCGGCTCCC	GGGTAAAGC	GATTCTCCTG
62151	CCTCAGCCTC	CCAAGTAGCT	GGGACTACAG	GCCCTTTTTC	TTAATCCACA
62201	ACCTTCAGTT	GGATTGTGCA	AATGAGTCTG	TCTTCACTGT	TTCCATTTCAG
62251	TGGCTGGAGA	CAACTTGGAA	GAGAATCTCA	GAAATAACTC	TGGCTGCTCA
62301	CCCAGTTGTT	TGTAAATTTT	TATTGAGACT	CTACTGTGTG	CCAGGCTGTA
62351	CCAGGCACCT	AGATATGACA	GTGAATGAGA	TAGGCAACAT	CTTTGCCATT
62401	GGAGAGCCTA	CAC TGAAGTG	GACATGAGGG	AGTTGAAAGC	AACTCTTATA
62451	GGAAATCATG	GTAAGACGCT	CCAAGAGAAG	AAAGATGAAG	GGCAAACACA
62501	TGCACGGATG	CCAAACATCT	ATCAGAGAGA	AAGGAATTTT	CAGACCTGAC
62551	CTGAATGATG	AAAGGAGGTT	TTTGAAAGG	AAAATAGAAG	GGAAGGACAA
62601	GGGAATTTAT	TGGGCAGCA	ATATTTATCT	GCTGTGGTGC	TTCACTCTCT
62651	CTCTAATCCT	TTTCCACCCC	AGCCCCAAAT	TTGAAAGGAT	TGCAGGGAGC
62701	TCCTGTCTGA	GTCATTCTCG	GTATTAAGAA	TGTACAGAAA	GGAAAGCTTT
62751	GGTTCTGAGT	TTGCAGGCTT	CCCTGTCTTT	CATTCCCTATT	GTAGAAAGCA
62801	GCTTATATAA	AAAGATGTGC	TGTTGTGGCCC	TTTGAGCTGC	TGTGATTGTG
62851	TTAGGACCCC	ACTGGATGGT	ATTTCGCATGA	ATTAATCTAC	TGTAGCATCT
62901	CTACAAATCA	AGAGGCTGGC	TTCTGTTTGA	AATGTCCCAA	GGCTTTGTGC
62951	ACAGGGCAAG	CTAAATGTCT	CCCTACAGTG	AGACTGAAAA	TGCCTTGGGT
63001	GCCCTTGTCT	ATAGGATCTG	ATATATAGAT	GCATGTCTAC	AATTGCACAG
63051	TGGCTGCTGG	CAACATTTAT	TACAATCTGA	ATGTGAAATG	GCTATTCTGT
63101	TCAAGGATTCT	TGATAAAAAAG	TATCAGCCAC	AGTAGATGTA	TAAGGAGCCT
63151	GGTTTCACTG	CAACTGACTA	CAGTTATCTG	ATTTTTTTTT	TCTAGTTTCAT
63201	TTTTAGTCTG	TGGAGCAAAAC	AGAGATTTCC	TCCCCAAATG	ATGTCCTTTC
63251	TCAGTCACCA	GGGTGTGGTT	ATTTGGTTTT	ATGTAGAGGA	GATAGAAACC
63301	AATCAGTCTA	AATCATATTC	TGTTGAAATC	AGAACCAAAG	GATCCACAAT
63351	CTGGCTCCAA	TCTAACTTTC	CAGCCTCAAC	TCCTACCTGT	TCTTTGTTAC
63401	CTTTACCCCT	TCTAAACCCT	TGTGGGATCC	TGAACCTGTA	ACCTGTGCTC
63451	AGACTGGTGC	TTTTGCACTT	CTCTGATGGG	AAAGATTTCT	CTCATCTTTT
63501	ATGATTGAGC	TGAAGTTTCA	ATGCTTCTGA	AATTTTTCCT	TGCTCCTGCT
63551	GGAGAGCTTG	TTTCTTCTGG	ATTCCCATAG	GTCAGGTCCT	GTGTTTGGCA
63601	TTGGGATACA	AAGCCAAGTA	ACATAGCATC	CATATTTCTCA	AATCCTCACA

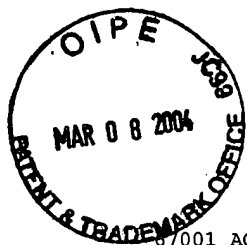
FIGURE 3S



Docket No.: CL000891
Serial No.: 09/804,474
Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

63651 ATTTGGTAGG AATATAGACA AGTAAATACA CCCTGTGCAA CCTTTTGTA
63701 CAGAGGTATA AAAGGTATG AAATAAGAA TTTAATCAAA TCAAATTGAA
63751 TATGGGCTTC AACTCTGAGA TCTTCTTCCA TGATGAGGTT CCCAGTTTAC
63801 TCTAGTGAGG TCATGATTCC ATACTGGCAC TCTTCTAGGC ACATAAGGCT
63851 CTATCCTATT ATTAATAAAA GATTATTACC ATTCTCACTG CAAGCAGCAG
63901 CAACCTGACA CCATCATCAT CATAAAATAA GTAAACNAG AGTTAATTAA
63951 GTGTGAACCT TCTAAACCAA CATTTGTATGA GATAATTACT CATAAAAATG
64001 ATTCTTCACT TTCCAAAGGT GCCTCTAAAT ACTAAGATT T CAGTTACAAT
64051 AAAACTTAGA TCCAATTTAC AGATATTAAT TTTGGTCCAT TTTCCAAGAA
64101 TATTTTCTTT TCTCATAAAA TAAAAAAGT ATGTGAGAAT ATTAGCACAA
64151 AGGGGTGCA AAATAAATTT TATTTATCCA GATGTGAGAT AAGAGGCACA
64201 TGCGTCTTTT TTCTTGTTTT ACTGCACTGG TTAGGACCTC TAGTATGTTG
64251 AATAAAGTGT GTAAGAATGG ACATTCTTGC TTTGTTTCCA GTTTGCTTTA
64301 ATATGTTTTC TGTGAGTTTT TCATAGATGC CTTTATCAG ACTGATTAAAT
64351 TCAGTCTATT ATTATTTTCTG TATGTTATTC AGTTTATTAT TTCATAATAA
64401 TTTTAAAC CATGAATGAG TTTGAATTTT GTCAATCCTT TATGTATCTG
64451 TTGAATGAT CATATCGTTT TGCTTTCTAA AGCTTCTAAT ATGGTTTAAT
64501 CACATTTATT GATTTTCAA ATGTGAAGCA AATTTAAAT CATGGCATAA
64551 ATCCTACTTG GTCATCGATG TGTATCTCTT TTTGTATGCT TCTGGGTCA
64601 ATCTGATACT ATTTTGTAA GTATTTGTGG TGCTTTTCA TGAGAGATGT
64651 TGGTCTGCAA TTTTTTTTTC TTGTAAGGTT TTTGTAAGGG TTTAAGAAAG
64701 CAAGGTGAG TAAAGCTCAC AAAGTAAGTC AAGAAGTATT TTCACCTTTA
64751 TCTTCTGAAA GAATTTATGC AACGTTGAAA TTATTTGTTT CAGAGATGGT
64801 CAACAGAATA TACCAGAGAA ACTATTTGGA CTTAGAGCTT CCTTGGGGGA
64851 AGGTTTTTGA TAAATAATGC AATTTCTTTA ATACATAGTA CTTATATTTT
64901 CTATCTTACC TTGTGACAA TCTGATGAAT TGTGTTTTTC AAGAAGTTTG
64951 CCCATGTCAT CTGAGTTGTT AAACCTACTA CAACAAAGTC TTTGATAATA
65001 TTCCTATATT AGCCTTTGAA TGTCTATAAG ATCTGTCTG ATGTTCCCTC
65051 TCTCACTTTT TTAAGAAGT CTGTCTAGAG GTTTACCAAT TTTATTTTGT
65101 TTTATTTTAT TTTATTTTTC CTTATTTGAG ACAGAGTCTC GCTTGTCTGC
65151 CCAGGTTTGA GTGCAGTGGC TCGATCTCGG CTCAGTCAA GCTCTGCCTC
65201 CCAGGTTTAC GCCATTCTCC TGCCTCAGCC TCCCGAGCAG CTGGGACTAC
65251 AGGCACCAGC CACCATGCCC GGCTAATTTT TTGTATTTT AGTAGAGACG
65301 GGGTTTACC ACGTTAGCCA GGATGGTCTC GATCTCCTGA CCTTGTGATC
65351 CACCTGCTTC GCCTCCCAA AGTGCTGGGA TTACAGGCGT GAGCCACCGC
65401 GCCTGGCCGA GGTTTACCAA GTTTATTAAT CTTTCAAAG GACTACATTT
65451 TGGCTTTGAT AATTTTTCCT ATTTTTCATC TACATTATAC TGATTCCAAT
65501 TCTTATCTTT ATTTCTTTCT TCCTTCTCTT CACTTGGGT TTAATTTGTT
65551 CATTTTCTT TCTGGCTTCT TGAGATAGAA GCTGAGATCA TTGATTTTGA
65601 ACCTTTCTTC TTTTCTAAAT AAGTGCATTT AAACCTACAC ATTTCCCTTT
65651 AAGCACTGCC TTAGCTGTAT CTCACAAAT TTGATATTGT CTTTTCATG
65701 TCTTTTATTC AATATATTCT AATTTTCTT GTGATTTCTT CTTTGGCCCA
65751 TAGGCTGTTT AAGAAATATG AGTTAGTTTC CAAATATTCTG AAGACTTTCA
65801 CAGATACCTT ACTATTATTG ATTTCTAATT TAATCTGCT ACAATCCAAG
65851 TATATACATT ATAAAGTTTC AGCCTTTTGA AATGTATTAA GAATATTACC
65901 AGAGATAAGA AGATAAGAA ATTACCAGCG ATAAGTAGGG ATATTTTATA
65951 AATAAGATAC GAATTGATTC ATCAAGAATA TACAACAATC ATAAATGTGT
66001 ATGTGTCTAA TAACAGAGTC TCAAATTATA TGAAACAAA CTGACAGAAC
66051 TAAAGAGAGA AATGGCCAAT CCCACAATCT TTATCTTTAT CAGGTGATT
66101 ATCTTGGTGA ACATTCTTGT TGCTCTTGA AAGAAAGTGT ATTCTGTAGT
66151 CATTTGGTAT AAAATTCTAT ATATGACAAT GAGGTGATTG ATAAATTTAT
66201 TTAGATTGTC TATATCTTAA GTTTTGTAGA ATTATTTTCT GAATTACTAT
66251 GACAAGGATG TTAACAACCT ACAGCTATGA TTGTGGAATT GGCTATTTCT
66301 CTCTTTAGTT CTGTCAGTTT TGTTCATGT AATTTGAAAC TCTGTTATTA
66351 AACACATACA TTCATGATTG TTGTATCTTC CTGATGAATT GGTTCGGTTA
66401 TTATTTATGC AATGTCCTTA TTTATCTCTG GTCATATTCT TTATCTTGAA
66451 GTCTTTTAA CTGATATGAA TGTAGCCACT TCATCTTTT TATGCTTACC
66501 ATTTGCATAG TTTATATTTT TCCATTATCT TATATTCACA CTATTTATCC
66551 CTTTATCTT AAGTCCATGT CTTGTAGACA GTATGCAGTT AATGTGTCT
66601 TGATTATTTT TACTCCTTTC TGACAATTTT TGCCTTTCCA TATAATATGC
66651 TTATCAATAC AGTTGGAGTT AAATCTACCG TCTTGTATT TGTACATCT
66701 CCCATCTTTT GTTGTGTTTC CTCATTTCTT TGTTTATTAC CTTCTTTTCA
66751 GTTATTTTCT TTTTGTATTC CATTTTAATT CCTCAATTGG CTTTATAGCT
66801 ATATATCTTT GTATTATTTT TTATTTGTTT CTCTAGGGAT AGCAATATGT
66851 ATACTTACCA CAGACAATTT AGAAATCATA TTGTACCACT TCACATAAAA
66901 TAGAAGAAGC TTGCAGCAGT CTATGTCCCT TTACACTCCC ATTTCTTGTG
66951 CTATTGTTTC CGTATGTATT ACATCAGTA CATTGTAAAA TCCACAATAG

FIGURE 3T



Docket No.: CL000891
Serial No.: 09/804,474
Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

67001 AGTGTATATAA TCTTTTTTCCA AATCCTTGTG TGAATTAAAA ATTTTATGAG
67051 TAGAAAAATA CATATAACAT TTTATTTCTTA CCTACATACT TACCAGTTCT
67101 GCTTTCTTTT CATTCTTACC TGTTTCAGTC TTATCTGTAA ACCCGTTTTC
67151 ATTTGGTGTC ATTTCCATTA GCATTTCAGT GCAGAACTTC TAGCAACATA
67201 TTCTCTATTT CCATGTATCT TAAAAATATCT TTATTTTGCC TTCGTTTTTG
67251 AAATATATTT TAATTGGACA TAGAAATCTA GGTTGGCAGT TTTCTCTTAT
67301 ACTCTTGGGT TTCATTGTCT TCTGATTTCT GTTGTATTATG AGGAAAAGTC
67351 ATTGATTATT TGCTCTTTCT CTATACACAA TGTATTATTT TTTCTTGGCT
67401 GTTTCAGAT ATTTTCTCTT TTATCTGTGG TTATCAACAC TTTGATTATG
67451 ATGGCCTAAG TGGTATTATT GTTGTTTGTA TTTATTTCCAC TTGGTGTTC
67501 TTGAGCTTCT AACTTCTGTG AGCTTTTTTTT TTCTCAGCGA ATTTGGAAAA
67551 ATTTAAGCCA ATTATTATAT AATTTTCTCT CTCCATTCTT TCTACTCTCT
67601 TTGGAACCTC AGTTGTACAT AGGTTAGACT GCATGACGTT GTCCCATAGA
67651 TCACTAAGAC TCTGTTCAAT TTTCAATTTT TTTCTCTATG TTTCTCAGAT
67701 TGGACAATTT ATCTTGATCT CTATTAAATGT TCACTTATCC TTTATTATGC
67751 CACCTTCAAT CTGATATTAA GGCCATTTCAG ATCTAGAATT TCTATTAGGT
67801 TATTATTTAT AGTATTAATT TCTCTGTCTAA GATTTTTTGT CTGTTTCATTC
67851 ATTTATACCA CAATATTAGG TTCTTAAACA TATTTTAATA GCTGCTTTCA
67901 AGTCCTTGTC AGTTAATTCC ATCTGAGTCA TCTTGGGGTT ATTTTCTATT
67951 GAGTGATCTT TACCTTATCT GTCGGTCACA TTTTCTCTCG TTTCTTCACA
68001 TGTCTAGTAA TTATTTATTG TTTGCTGTAT ATTGAAATGA AATATTATAA
68051 ACAGTGAGAA TACATTTATC TTCTTTTAA GGGTATTGAG TTTTGTCTCG
68101 GAAGTAGTTA AATTACTAGT AGAACTTTTTT GTTCTGTCTA AACTTGATCT
68151 TATTCTTTGT TACAGTGAGC CTATTTTAGT TTTAAAGTTA GTCTAGGGT
68201 ACAACTCTTG CTCTATTGTA TGCTCCTTAC TTCTATCACA TTTATTTCTA
68251 TTGCCCTGAGA TAGTCAATGA GTTCTCACCT GAGCAGGAAC TGCAACATTT
68301 CTTGACATGG TCTTACCTAT GTATTCATCA TTCTCTCTC AGGCCTGTAA
68351 GAAGAGATCT CTGTTGGGTC CTGTGGAATC TTGCTTGCAC TTGACAGCT
68401 CAGCCTTCAG CCAAAGACTT GCAGGAAAAC CCCATAGAAA CATCTGGGCC
68451 CTCTCAATAT TTGATGTTTA GGAAGCTAAA CGTCAAGTAT AGCCTCCTTT
68501 TCTAGGGACC CTATCTTGTG AATTTCACCT ACCTTAACAA CTCAGAACTC
68551 TTATCTTCTG CCTTCTCAGG GGAGCTAAAC TGTCACCTTC TGTGGGCTCC
68601 ATCTTCTCTG TCCACAATAG GAAAGTATCT GCAGAGAAAA GGCTGGACAA
68651 TTGTGTGTA ATTGCTTCAC GCATTTCCCT TCTCTCAAAG ATTGTAAGTT
68701 TGCACGTGTT GCTGTTCAAT ACCTGAAAAT GATTTCTACA AATTGTTTTT
68751 CCAGTTTTAT GATTGTTTTT AATGGGAGAT CATTTCTAGT ACCAGTTCCT
68801 CCATCATGGC CAGAGGTACA AGTTCAACTT GGATCATTTT AAAAATACAA
68851 ACTGGGGCAT GTCACCTTCT GCCCCAAACC CCTTGGTAGC TTTCCATTGC
68901 TCTTAGAATA ACTTTGTGAT CTACAACATC TTCTTCAAGG CCCCGCATGA
68951 TACAAATCTT GGCTATTTCT CTAGTTTCTT ATTGCACCAC CTTGTCCCTC
69001 ATCCACCTTT TTTTATAGCT TCTCTCTTTC TTTGAACTTC TACCACCAGG
69051 TTTTTCACA CGTTCCTTCT TCCCCATTAA CAATGATCCA CCATTCTCTT
69101 TCTTTATCCA CTGTTACTCA TCCTCATAAC TGAAACATCA TTTCTTAAGG
69151 ATGGCCATTC CTGGTTCAGT CAGTCTATAT TTCATCCCCC ATCACATACT
69201 CTTGTTTATC CCTATATTTT TCCTTCAAAG CACTTATTTA AGTTGTAATT
69251 ATGTGTTGTT TATTTTATGT CTGTCTGCCC TCACAGAATC CACAGTCCAG
69301 GAGAACAGAA ATCTGCCTC TTTTATTTAT ACCACATCCA CAGTATTATT
69351 AGTGCCTGTC ACCTAGTAGG TATGCAGTAT GTACCTATTG AATAAATGAA
69401 TTGACTTCTG TCTTTTAGAT CGTCTACTCA TTTTATCATT GATGACAAAC
69451 ATAATACCTT ACATTGCTGT AGTCTTTTTC ACTCCTCAA GAGGATTTTC
69501 TGCATAGCTC CTCTGAGCCT CACAAAACCC TTTAAGGAAG ATTGTGAATA
69551 TTATCAGATA AAGATTGTGA GACACAGAAA AGCCAGATGA TTTGGCAATG
69601 CTCATAGTAC CAGAGGCAGA AATACAGCTA GAACAGTCTC CTGGCCTCTA
69651 ATCAGGAGTT CTTTCCAGAA CACTGCTTCA TCTTCCATTC TCTTGGGTTT
69701 TTTCTATCCT TACTTTATAG GGCAAAATGT GTGCAAAAGTA TAATCCCTCT
69751 TTTGCAATGT GTTTTATAGT TTTTCAAGTT GAATCATGTA GGCTTTTTAT
69801 GCCCTTAATA AATATCAGTG AGCACAAGG AAGTCTGTG AGGGCTTATA
69851 ATCATTTTGC TCCCATTAAT TCCAACACTG AGCAGTTTCC CCATTTCCAT
69901 TCTTGGCCTT TTGCTATCCC TGTTAAATC TAAAGTTGCT
69951 TGAACCTTCT TATTGCAAAA ATGCATCTTA AACATTCTAA TACCTCTTTT
70001 TTAATAAACC AATAAAGACT ACGTCAAAAA TCAGCCATCA ATCAGAAAGC
70051 CCTGCAGTCA TTTGTGTGCT GTTGTCCCTA AGTAGAAGTG AATGTGCTGA
70101 GCTCTGCAAT CCCACCTAG CTCTCTGTG ATCAGGGTGG ACATTTCCAG
70151 GACAACCTGG CCGAGGCTGG AAACACCATC TGAATGTCTG ACCACACAAA
70201 GTTGAGTGGC TGATCCAGGT TTAACCTTGA CCTCATCAGC ACCACCTTCT
70251 AAGCAACACT TTGGCTCAGA AGCCAGTTA TTTATTCCAA GGGATGATTG
70301 AATGCAGTGC TAGTGTCTT TCAGGGCTTT TGAACCTATT TATTTATCCA

FIGURE 3U



Docket No.: CL000891
Serial No.: 09/804,474
Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

70351 GTCATTTATA AAAGATGAAG AGGAGAACAA GGTAGGCCAA AGTGGCTTTG
70401 TACTATTAAA GGCTGCTTGA TTTCTAAGTA CATGTTCTTT GCCACCTTTC
70451 TGCCATTCCA CATTCTAGAA GCCATGGGTA AGTCAGCACA GGGATCTTAA
70501 CATGATAACA TTGGTTTTAG GAGGTCTCGT GCATAATGGA CCAGACTTAG
70551 AGCACAATGC TGTAAGGTAG TGATTAGGT GAGCAGCAGA TTCTGGCTTT
70601 AGGAGTTTAT TATCAGATGC TTTTAAACG ACTTGTGGCC CAGGATCCCT
70651 GCACCCATGG GAAGCATTGT AGCCTTAGAA CTCTGGGAAT TCTGAATATA
70701 ATTCCTGAAT CAATCGTAAG GATGCATATC TGATGCTTAG TGCAAACCAA
70751 GAGGCAGAAT ATTTGCAGGC AGTGTATCCT TGAAAAACAA ATCTAGGTCA
70801 TTTTCTGGCC ATGCTTCAAG CTTACTTTTC CATCCTTCCT GATGGTAGTA
70851 CTAACATACAT TTGTAGACCA TTTACGTGGT CAACACTGTG CTAAGCTGTT
70901 AGCTTCAATTC TCTATGAGAC AGGCACTCTT AGCCCAACTT TACAATTGGG
70951 AAAACTGAGA CTCATGAGA TAAAGTAAAT TCTTTACAGT CATTATGCTA
71001 GTCCAATGAA GAGCTGCGAT TTGCAACTAA ATCTATCTGA TTCCACAGTC
71051 TTTGCTTTTA ACCAGAGGTT AGCAAACTAC TTCTGTAAAG GGAAGACAGT
71101 AGTTATCTTA ATCTTTGTGG GCAACATAGG GTCTCTGTAA CGTATTCTTC
71151 TTTCTGTCAC AATCTTCTGG AATGTAAAAA ACATTTAAAA TTTACAAACC
71201 TTACAAGAAC AGCTCATGGG CTAAATCGGA CCTGGATTGA GTCGTGAAT
71251 CATAGTTTGC TGACCCCGCT TTTTAACCAG TATGTACCCT CCTTCTCGGG
71301 ATGTGAAAAA TTAGTGCAAT TGCAATGGAA AATAGCAAGA AAATGGTAAG
71351 GGCCTGGAAG AGGCAGCAGG ATTACATCAG GTGCTATCCC TGCTCTGGTG
71401 AGATGAAACT GGGGATCATT GAACCACCTG GCATTGTGTA AAGAGTTCTG
71451 CTTTCCCTCT GAGATTCTTT CAGGAACCTC ACACCTCTAG CAGCCCGGAG
71501 AACCGTGGGC TGCAAGGAAA TGCCCTCTCA AAGGAGTAGA AAACCTGCAG
71551 GATAGAAATC ATCACAATCTG TCTGGCTTTT CTCAACCTTT CTCTTCTGCA
71601 CTTTCTTGGG TATAATCAAA GCACCTACCAG GAACCTCCAG GTCGGCACCT
71651 TTTCAATTTT GTGTTTTCAT TTAATTATTT CTCAGCTGCT AAGTGTGTTGA
71701 CTGTTTAAGG GACTCTAGTG GTAAATATTT GTCTTTAGCC TGGCAGAAGC
71751 TGTGGTTTCC TTTGATGAGC TCACACGGTG TGGCTTTTAA GATGCTGCTG
71801 ACCAGGACAG CTGACTGTCC CCAGTGGGTG CAGTCCCGAG CAGTGGGCTG
71851 GACCCCTTCC AGAAAGCGCT GCTGGGCCAA GAGGCTTCCT CCAACTTCCC
71901 GCTGCCCCCA TCTAACCAAC ACCTCAGTCT CTTCTCCACC TGCTTCCCTG
71951 CCCTCTTCTT TCCCTCGCA GACACTTTCT TCTGCCTGGC AAAAGGAATC
72001 TTGTTTCCAT GGAAGCCTCA TTAATCTGCT ATCTTGCTCA GTTGGGGTTT
72051 GATCACGGCT GCCAGAAGTA TTTTLAGCCC ATGCAGTTGC GTAATGAGAT
72101 AGAGATTGGG GAAAGGGGGA GGTGACTGTA TAGGCAGAGG GTTTTTTTAA
72151 AAAAAAGTGA GAAAGAGAAG GAAAACCTCT AAAGAAAAGA GTTTTATGGA
72201 ATTGGAAGAA GGATGGAGCA CCTCTTTTGG GAGCATGAGG CTGGTGTCTT
72251 CTGGTTAGCT CTTCCCACTG GAAGCCCATG GACACTTGCC ATAATACCTG
72301 TCCTGGTTCAC ATGTCAGGGG AACCTCTGAT CTCCCTTTCC ATGAGCTTAG
72351 TTGGCCCAAG CAGGGTGACA CTTATGCTAG GGAGTGTGAT TGATGTTGCT
72401 GCTTACAGAT TTCCCTTCCC ACAGACCTGA TGGGGCAGCC AGGATAGTGG
72451 CAGAGAAGAA GACAGAGCAA TAGCAGGAAA GAGAGGACAA CACTAACACA
72501 TTGGAGGTTT ATGTTCAAAG ACGGGATCTA GGGGTCAGA GAAAGCACAC
72551 CTACCATGTA ATTGGTGCTG GAATCTGATG CCAAGTGCAC CCTTGGCTTC
72601 TGAGGTTCTG AGAACTCTTG CTTGTGCTTT TCAGCCAGAC TATGCCCTCA
72651 CCTGCCCTTG TACTTTAAAG AGCTCTTAG GCTGGAGTGG TTGTTTGCAT
72701 TGGATTGTTG GAGTGTGTGT GCATGTTGTT GTGTTCTTGT ATTACAAGAC
72751 AAAGAGATTA AAAAAAACC ACATGCAGCT GTCACAGCTA ATGTTTATAG
72801 AACTTTTACT ATGCCACATG GTGTTTAAAG CATTCTATAT GTGTTAACTC
72851 ATTTTCCCTA ATTCTATGGA CTAGACACTT AAACAGTCTC CATGTACAA
72901 ACAAGGAAAC TGAGGCACAG AGAGTTTGGG AAACCTATTT GAGGTCTCTC
72951 AGCTAATTAA TAGTGGAGCC AGGTTTGTGA CCCAGACAAC CTGATTGTAG
73001 AATCTGCAGT CCTAGATTAG TAACGTGTTG TTGGCCTGTC ACACATTTTA
73051 AATGACATTC TGTACACAGA ACCATTTATA GTAACTTTGT ATTGTTGAGC
73101 TGAAAGCAGT CTGCAGATGT GCTGCTGGGA TTTTATTTCAT CTTCAAAGAG
73151 GTGTTTTTTT TTTTTTTTAA AGGAAATGCT TTTTCTGAGG GTGGTATCTA
73201 AATTCATAAA AATCTTTACG ATCAAGATTT TCACAAATTT CATTCTGACT
73251 CTGTTGCATT GCCCTTCTTC CCATATTCCC AGTTAGTTTG TATGATTGTC
73301 TGCATCTCCC TTGAGCCCAT GGTCCCCCAC AACATTTCTT GCAGAACTGT
73351 GTCCTGCCTT CACACTGTCA GGCAGCAGGA GCCTCTCTAG CGGCCAGCCC
73401 ACAGTCTGTC AGCTCCTTCC TCAGGACGTT TAATTTCCCA CATTCTATG
73451 CAGTTACCTC ACAGAAGGAT GGCTACGAGG GCCTCACTTG GCTTGGCAAG
73501 TTGGTCCCTT TTTTACTCAC AAGACTCTGT TTATCTCTTT GTTTATCTTT
73551 GTTTATCTCT TTGTTGACCT GCCCTCTTTC AAGGCCCTCAG TTTTCTCTGA
73601 AGTTTACAGC TTCCCTCCTC ATCCCGCAAA AGACCAAAGT GGAAGAGATG
73651 AAACCAGAAAT CCACTGCAAG CCCCACCTGC CACAGCCTCT CCTCTAAATG

FIGURE 3V



Docket No.: CL000891
Serial No.: 09/804,474
Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

73701 CATTCTCTGT TGTGTTTAGG ACTTGAGAAT GAAGAGGGAC ATGAATTGAG
73751 GATTTGTTTA TTATCTTTTA CAATATCCCT GTGAGCTGAG TACTGTAAAT
73801 ACCCCCATTT GATACATGAG TAAACTGAGG TGTGGAGTGA TAGAGGAATT
73851 TGCTCAAGGT CACATAACTA GTAAGTGGGT GGAGCTGTGA TGTGAAACTG
73901 GGCAGTCTGA TTCTGGGACC TGTGCTCTTA ATCACCATC TATATTGCCT
73951 CCTACTGAA AACATCCAGG GAAAATGTTG AGATAGATCA GCTGAAATCT
74001 TCTTGCACAG TAAAGCAGGG GCCACCTGTC CTGGAGTTAC ATTTCATCTG
74051 TTCATTGTCA ACGATTGTG TTCAGTGACA CCCTCTTCAG CCCAAGAACT
74101 TACCTGGGTG CTGTGACAAT TGGACATGAC TAGGAACAAC CAGTGACATT
74151 GTAGCCCATC CAAACACAGG GTAGGAAGTG GATGCTTGTC ACTCTCTTTT
74201 GGTATAAGA AGCAGGAACC CAGTAAAGGC ACCTTTTATA TATCTATAAA
74251 GTTGAATATA TAAGATATAT GGGGGCCAGG CACAGTGGCT CACACCTGTA
74301 ATCCGAACAT TTTGGGAGCC CAAAGCAGGT GGATCACCTG AGGTCAGGAG
74351 TTCAAGACCA GCCTGACCAA CATGGTGAAA CCCCATCTTT ACTAAAAATA
74401 CAAAAATTAG CTGGGCGTGG TGGCACACAC CTGTAGTCCC AGCTACTTGG
74451 GAGGCTGAGG CAGGATACTT GCTTGAACCC GGGAGGTGGA GGTGTCAGTG
74501 AGCAGAGATT GCGCCACTGC ACTCCAGCCT GGGTGACAGA GCGAGATTCC
74551 ACCTCAACGA AAAAAAATAA GAAGATATAT GGGTATGTGT AGAACTCACA
74601 GAAGGGCAAA CAGGCCCTAA CAGGTGCTGA AAACAGGAAC TGGGAAGTTG
74651 CCAGTACCTT CCTGTCTTTT CCCCTGGAAC CAAACGGTTT CTTACTTGCT
74701 TCTCTCTGCA CCTCTGTCTC ATTTCCCTCT CTCTTCAGAT GATTTTTCAT
74751 TCTTGATACA CACACATAGA AAAATCAGGA TCCACCCTCC CAAGTTTACA
74801 TATCGTTGTT TCAGGCAGCC ATAGTATCCT TAAACTCCA CATTCCAGGG
74851 AGAAAGCTTG GGTCAAGGAT TCAGCCAAAG GGCAGCGAAA TGGAGTAAAG
74901 ATGCAACTGC CAGGTCTATG GGCAGCAAGG AGGCCGGGAA GGAAGCCGCT
74951 GTTGTGGTCC AAGTGACAA TCAACAGCTC AAAGCATAAG TAAGTTGTGT
75001 GCTTTTCACA GATGGAGAAA CTGAGGCACA GAAGGAACCT GGCTGGGGTC
75051 CAGGTCTCTG GCCTTTGTGT CAATGCTAGG TCACTGGATG TGGCGTCTGA
75101 TTTCTACAGG AAATGTGGTT TCTCTACTTT GTCCAGAGC CCACTCAGAG
75151 CACTGGCTGG CCAGGGGGTC CTAGGGCCCT CTTAGGATAG TCTCAGGCCA
75201 ACAGCCCCAG GACAGAAGCA ACCAAAGTGA AGTTATGAAA GAAAGCTCTT
75251 TGCTGATCTG TCAATGGCAC CCTTGTAGAG CCAATACTTA GAACACCTGG
75301 ATTTGAATAC TCATCTCCAA AACCTGTGTT CTTTCTACCA CGTGACAAGC
75351 CCTTGTAAC CTCACAACGT CTCTATGAGG TGAGCGCTTG CAGATCCACA
75401 CTTTAGATAA GCAAAATGGAG GCTCAGAGGG TAAGCAGCTA GTTCAAGGTT
75451 ATGCACCTGA GCCAGGATGT GGACACAGCT CTGTGTCTGA TTCCTAAGGG
75501 CCTGTGCTTT AGCCACTTTG CAATACTGCT GCTGTCTGCT TCATTTCTCT
75551 ATCTGTCAAG TGGGAACGAT AATACTCAAC TCACATGGAT ACTGTATGAG
75601 GAAAAACAGA TAAAAAGAGA GAAAGTGCTT TGAAGACATA AGCAGCCCTG
75651 GCAGATGGGA ATTATTTTGG CTGCTGACAC ACATCCTCAG CCTTGAGGGC
75701 TCTGCTGAGC CATACCCAGC TCAGAGCTCT GGAGGCACCT CCTCCCCATC
75751 AACAGCAGGG GGGACATTCT GTCCTCATCC TGAGCAGGCT GACAACTGA
75801 ACCCCACTCC TCCCCTCAATG TCCCCTGCTT GGGGAGGAGT ATAGCTCATG
75851 CTGTGTTCTG TCTTGTGCTG GAGAGAATGC AGAACCAGGA ATTTGGGTCT
75901 CAGCAGGTTG GGGAGAAAAG GAAATGTATT TCTTCCCCCA AGATTTCTTT
75951 TTGAAATATT TTCAATTTGTG GAATCAGATT GTGCATGCAA GTTTCTTCCA
76001 GAAATGTAAG ACGTCGTAAT GATGGGAAC TTTGGTTTTA TAATTGAAGG
76051 ATGGGAAAGG AAACCTGATAT TTATGGAGCA CCTGTTCTAT ACCAGGCAGC
76101 TACCCAAACA TCAGCCATTG TTGCAATGTT ATGCAAGCTT TATATATCCAC
76151 ATTTACAGT CTGAGTCTGA CTCAGCAATG TTGTGTTCTA TGTGCTAGTT
76201 CCCACAGGTA GGTGGCTGCA GCGCTGGGAT TTGAACCCAT CTCCAAAGCC
76251 TCCATCTTTC TACCACTGCC TCCCATTGGT GGGGAGGCCA TGGACTGGCT
76301 GTCAGAGATG TCCTTTCCAG TCTAGCAGAC TAGGAAGCTG CTGGAAGCTA
76351 CTTATGCAAA GGTCAGCAAG GAAGGAAACA GAGTCAGAAC TAGATGGGGC
76401 TCCCCTGGCC ACTTTTCCAT GCTGGCCAC ATGTCCGGCT AGCAGTCAAC
76451 ATTTGGGTCTT ATGCAGAGCC ACCTGTGTTT AATGGAACA TCCTGGACAC
76501 TGCACAAACT AGTGGGAGCC TGTGAGGGAA CAGCTGTCTG GGTTCATTGA
76551 GGTTCAGCCC AACTCATGAG CTAGGGCAGG TACCAGAGGG TGTGTTCCAC
76601 CCAATGGGG CAGGTAGGCA GGGGACACAG GCTCCATTTT CATGACCAA
76651 GACTGAGCAG AGAGGCTCTC TGAGCAGTGG CAGAAATGGGA AGTGTCAAGA
76701 AGCTTTGTTT GACAATTGAG TCAAGAGGAC AGAAAAGACA GAAAGCAGAC
76751 ATCAGAGTTG GGAAGGCTCA CCCCAGCTCC TTGACAAAGG TGCATGAGGC
76801 CAGTTCTTGA AGCAGTGACC CTGCCTTATG TCATGTGTTT ATCAAAGCCG
76851 GCCCATCAGC CCTGAAGTGG CCTCTGTGTT TAGAAGAGGG CCTGACATGA
76901 TTCTCTGAGA AAGGATTTGA CAACAACAAA GTGTGCGCT ATGTGTTGTC
76951 TCATCCCCTC AATAGTCCTG TGAGGTATGT GAGACAGGTG TTACTCTCTC
77001 CACTTGGCAA ATAGGGAAAA GAGGGCCAG AGAAGTGAAG CTGCTTTCCC

FIGURE 3W



Docket No.: CL000891
Serial No.: 09/804,474
Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

77051 AGGACCACAC AGCTGGTAAA CAGTGTCCAT CTCAGCTGTT CTGTCTCCCA
77101 CACCAATATC CCTGTGCACC ACGCAAAACAC AAAGACAACCT GGACAACCAA
77151 GTCATCTAAT GAGTATGCAT GCTATGGTCT CTCTCATTTT GTCTTTCAGG
77201 GCTATACCCCT AGGAGAGCTA ATCATTTCTTG GTTAGATAAG AAATAGCCAA
77251 CACTTCTGCA GCATGGTAGG CCAAAATACCA CCAGAATAAA CTCAGACCCA
77301 AAGAGATGCT CAGAATGTGT GGAGTTAATA CTTCACTATA CAGCTCTAAG
77351 GTATAAGCCT TGTCCATCTG TCACATTATG ACATGTGCTT GCTCCACCT
77401 CAATTCTCTGA TTCCACATTA CAACAAATAC AATTTCAGGC TTGGAACATA
77451 CAATGCCAAT GTTTCTGAAG CCCATATTAA ATGCCAAAAT CTGAGTCAGC
77501 TACTGGAGGT AGAGACATGA ATAAGATGGT CCATATTAT TTAGAGGATT
77551 CTTTGGTTGC AAAGGGCAGA CACCCAGCTT GAATTCACCT TGGAGAAATT
77601 GGGATTTTTT TGGCTTGCAT AAGCAAAGCA TGAGAAAGAA AGTTCCAGGG
77651 ATGATGAAAA CCAGGAATGC AAATGTCTCC AGAATTCCTT CTTTTTCTT
77701 TTAGGCCATC TTTTCTCTCT CAAACTGGTT CCCTCCACTG GGCTGGAGAC
77751 GTTACTACCA GCAGCACTCA GACCCACATC TTCAGTTTAA ATGTTGGAAA
77801 TGGACTGTCA GAGAACATTT AGGCCATTCA TTCTGTGGGA GAGATAGGCT
77851 ATGTAAAAAG ATAGCCACTC CCATGTGAAC AATGTGGTTA GGATTAGAGG
77901 CATGAATATA CCCCAAACCA GGGGTGTGGG AAGGAGGTTG ACACCTTAGG
77951 TGATAATACC CAGACCTTAA GGAGCTTTCT GTCTAGAGGG AGGTATGGAC
78001 ATGGACAAGT AATCAACAGC TACAAAGCAG AGCTGCCAGC TCTGCAACAC
78051 AAGAGCCCTG AGAGGCATGA CAGGGGCAGG GTGGGGATCC ATGTGGGTCT
78101 GAGTTGAAGT GAGGAGGGGC ATCAGGAAAG CATTCCAGGA GAGCTGAGGG
78151 ACACCTGAGC ACACCCCTCA AGAATGACTG GGGGTCATGA GGTATACAAG
78201 GGAGGAAGTG CACCCGAGAC AGAAACAATC ACATAAGCAA AAATGCAGAA
78251 GAATATGAGG ATCGGGGAAG GGCAAGTAGC TCAGTAGTGT TGGAGGCCAA
78301 GGGACACGAA GGAAGGTGAT AAAGCCCTGA TGTTAAGGAT AGAAAAATCA
78351 AAGTCCTTTG AAAATCATGT GGAGTTAGGA TCTCAAGAAC CCTACAAGGA
78401 TTTCTTTAGA ATAGAATCAA AGAAAAACAA AGTTTACAGT CTGTGAGGGT
78451 TGCATAGGAA GTAACGTGGT GAGAAATGTT GGCTTGAGAA CCACATATCC
78501 ATAACACAAT GGTGTTTGTAG AGGATTTGGG GGAAGGGAGA GAAAATCTCA
78551 AATTGTCTCA GTAACATAATG AGCTTTCATG TACATTTAAA ATAGTAATAA
78601 ATGCAATTGT GAGGATGATG GTGAGATGAG CAAAATAATC CAGTTTGTAA
78651 TTGTAGTTAT CAGGCTGGCA TATCCTGCAG GTCACACTTC TAAACATGAC
78701 TTCGAAAAAT CAAAGATCAG CTAAGTTTGA AGTAAGTATT GAAAGAGGGA
78751 GATTATGTTG CCTCAAGTTA AAATAGAACG TAAAAGATGG TGATTCAAAT
78801 GATCAAAAGC ACCAAGCTTC CCTGTAGGA TTCAAGGGAG GGGTGCCTGG
78851 CTCCGACACC AGATATCTGC AAAGCAATAT GAAATGAGAT CAATAGTAGA
78901 CATTGAAAGA TTGAAACTGA TATAGGATAT TCAAGTACCA GCTTCAAGAA
78951 AATGAAATGA GACCTAATAA AAGAGAGTAG GAGTCAAGGG GGTATACGAT
79001 ATTAAGAGAA GTGAAGAGCC AGGGTTTGTA GGAAGGAAGG GAGAAGAGGC
79051 AAAGAGAGCA GCTCTTTTAA CACAGGAGCT TCCTCCTTTC CCATTCTCCC
79101 TCCTGCTAAA AGCCGAGTTT GTTTTAGCTG AAATGATTGT AAGACAAATT
79151 TTTATTATTA AAAAAGGAGC TATTTGTGTG TGGTTTCCAT TATAAAATCA
79201 GAGCTCTGCT GCCATAAAAT TAAATCCCAT AATAAAATGA GTAGAAAACG
79251 TGATGTCCTG CAGAAAGGAA GATGGCAGCC CACTCAGTGC CATGCTGGGC
79301 TTGACTATAT ACAAGCCGTG CATCTCCTGC TGCAGTTGT AGCTGCTGCC
79351 CAGCAGTGCA CATATCGTT GCAGCTGTTT TCCTCACTT CTGAGGTTTA
79401 TGAATCCCT CATCCATCAA TAATTGATCT TTAGCTCTTA GTCCAGGGGT
79451 TGTCAACTGG CACTCCATGG ACCTTTAGAG GATTGATGGC TAGGTTTTC
79501 AAGATCTTTG AACCCCTGA AATTATATAC AAAATACTGT GTGTGAGTAT
79551 GTGCATTTTT CTGGTAAGAA GCACCTGAAT TATCGAAGCA GTTTGTGATC
79601 CCCCCAAAAG CTAAGAACTA CTTCTAGAG CAAAGGGAGA TTTTGCTACA
79651 CTTAGAGATT TACACATTTG ACCAGGGCAG CTCACACAAG TGGGATGCGG
79701 TTTACATTT CATGGCAGAT CTGCTTCCAG CTATACAAAT TCATCAAGGA
79751 AATATTGTAA TACTTCTATA TGAATCAGGA ATTCACTATA TTTAACTTAT
79801 TTGGAATAAG AACCACTATA TATATACAAG TTTTCCAAA AGACTGAAGG
79851 TTCTTCTGT GGCAGGAAGG AATATGATTA GATTATGAA GCGCCTTTAT
79901 GTTTATATTT CAACTCTGAA AGATAATTGT GACTTTACTA AATCAAACCT
79951 GTATACCACG ATTAGGAAA TGTGGACTGA TTTGGGGTTC TAGGGGTAAA
80001 ATGTGACCCC TGTGAAGTAC CAATGCACCG TTCTTTTATC TGTGAACGGG
80051 CACTGAGCTT CTGAAATTAA TTAGTAGGCA GGAGGACATG CGCATATGAC
80101 GTGATAGTTT AAGTACTGAT AATTATTCAC TTGGAAGGGA AGAGAATAAA
80151 ATTCAGACA CAGTATTCCT TAATGGGAAA TCAACTTAGA GGAGGTAGGA
80201 GGGAGATCAA GCAAGAATAT TTCTGGTAAA ACATGCATAA ATCAATGGTC
80251 AGCCAATGTG TTGATCAAAG AAATTATCTT TCGGGGAAAA CAGTAGAAGG
80301 CAATTGAAAA ACAAGCATCA GGCTGCATAA AAACAGCAAA CAAAAGTCAC
80351 AATGGCTTGA TTGTGTGATG AGGTAATTAA TGGCTGCAGT TAGCAAAATA

FIGURE 3X



Docket No.: CL000891
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Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

80401	TGTTCAAAAA	AAAGACAGAA	AGGGTAGTTA	CAGGAGAAAA	ACATCCCCGC
80451	AGATCTTCAA	AATCAGAAAC	AATGAAAAATA	ATTATTTCAA	AAATTAAGAA
80501	AAAAACTCTC	TAATTTATAC	CTGAATTACC	TGGATAATTG	GTAAAATTTT
80551	CTGCATATAC	AAATCTTGGT	CCTCTGCTCC	TCTCTCTATA	AATAAATAGA
80601	AATGTATGAA	TCAATAGTCA	GCCAAATGTG	TGATCAAAGA	AATTATCTTT
80651	TGGGGGAAAA	TTGGTAGAAG	CCAATTAAAA	AACAAGCATC	ATATTGCATG
80701	AAAACAGCAA	ACGGAAGTCA	CAATGGCTCG	ACGGTGTAAT	GAAGCCACAC
80751	AATATGTATT	AAACACATCA	TCTACACAGA	TGGATTCAAA	GATACCTTCT
80801	TTGTGTCTAA	GTCCCAAATC	TGTGTTTCCT	GGCTCTGTTC	CCTCATATCT
80851	TGATCATCTC	CAAGTCAGCA	TGCCCAACTT	GAAAGTGTC	TTTTCAAAAC
80901	CTGCTTCTTC	TCTTCTGGAA	GTTCTTCCTC	TGCCCATTCG	TCCACAATCC
80951	CCACCTCTTT	CACCCAGTAG	CAAACTTAA	ATTTATCTTT	TACTTTGTCT
81001	TACTTCCCTT	TCTTATATTC	AAAATGTTTC	TCATTGTCAT	CTCTTTTCAT
81051	TCATTTCTAT	AGCATTTATG	AGCTCCTGTT	ATGGTTTGG	AACGTGTTCT
81101	CATGCTGGAG	GTGGTCTTAT	AAACAAGTAA	TTTCAATTGA	GTATTTAGTA
81151	TGTTAAGTGC	CATCCCAAAG	GCAAACACCA	GCTGTGGGAG	GCTCCCCAAA
81201	TCAGTCTAAG	GAGTTGGGA	AAAGCATCTC	AGAGAAGATG	GTGCTGAGA
81251	TGGGGAGGAT	GTGTGGAAC	GGCAAGGAA	GAGAACAAGT	AACAACATTC
81301	TAGAAAAAGG	CCTCTTTCAG	CATGCTAAGA	AGTTTGGAGG	ACAGAGGAGT
81351	TACCATTCAA	AATTTGGAGG	GAAGGAAGAG	CATACTGAGG	TTTGCCACTT
81401	GAACAGATAA	TTTCAGCTGT	GTTGGGTGAG	TGAAGTTGAG	TGGGTACAAA
81451	TCAGGTCAAG	ATATAAGTT	AGGAGACTGT	TACTAGAATC	CAGGCCAGAG
81501	GTGATGGTGG	CCAATATATG	AGAGTTTATG	CAGGGAATGA	AAAAAAGAAA
81551	ATGTGTTTAT	GAGGTAGAAG	TAGGTAAAAA	CAACAGGATC	TGGTTCCTGA
81601	TTGGAATATG	GGGTAGCCTG	GAGAGGAAGC	CAGAATGCAG	GCAAGAATGC
81651	ATAGTGGTAC	CATCCACTGA	CATAGGGATT	AAAGGAGGAG	AAGAAGCTTT
81701	GGTAAAGAAA	ATAAGAAGTT	CAGCTATGGA	ATGTTTGAAT	TTGATTTCTC
81751	TGATGAGGAG	TAGTTCTAGG	TGATGATAAT	GCTCAGGGTG	TAGACTTGAG
81801	AGTGGATGGG	TAAAGTAAAG	GTTGAGGCTA	TTAAAGGGA	AAAGGTCAAG
81851	GAAGTGGGAG	CCAAGGATT	ATAATAAGTT	ATCTTGGGCC	ACTAAAGCCA
81901	CGCAGGATGC	TGGCAGGAAA	CCTATGAGCC	AGGTCTTCAA	TGTTGAGTCC
81951	AGTACTCAG	GTGTCAGAAG	CAGCAGGAGA	AGCATTGATA	GCCTGATGGG
82001	GAAGGAGCCG	TTACCTGAGA	GTAGCAGAGA	GAGTTATCCT	AGCTGACACA
82051	GCTCTCAGGG	ATTTGCTTCT	AAAGCAATCC	TTAGGAAAGA	AAGAGCAGTA
82101	TCCACAGGAG	ACTGGTGGGC	ACTGGCTTCC	CCAGAAAACC	TACCTAGATG
82151	AATTCTATTC	TCAAGGGACT	CCTATTTAGA	TAAGGGGCTT	TGTTAGTTCT
82201	CAGAGCAACA	CCAAACAGAT	GTATATCTCA	TTACTTGCCC	CCACAACCTT
82251	TCTGCTCTGG	CCACATGGGC	CTACCCACTG	TCTGCTAAAT	GCATTTCATA
82301	TTTTCTTGTT	TCAGTGCCTC	AGTATTCATA	ATCTTCTTTT	CCTAATCTCT
82351	GCCCCTCACT	TACCTGAATC	TTTTGTATTC	TCAATGACCT	GCTCCATCCC
82401	AGCCCTTTCA	AGAACCCTTA	ATACCTACCA	AGTGAATACT	CTCTCCATTG
82451	ATTACACACT	TCCTGTAGCA	CCTGTTCTAT	AATTATGAAA	TATTACCTAT
82501	TGTACACATA	TATTTCAATC	TCTTGGTGGA	CAGAGAATCC	AATTTATGCC
82551	TTGTCAATTT	GTAGCACATT	TCCTTGACATA	TGTAGATGCA	CCATGAATAT
82601	TTAGAGAACT	TGTTAGTTAA	TTTCCTGTTT	AACATGGGCT	GCAAAGTTCT
82651	GGTCCATGCA	CGTCTTTTAT	AAAATAGAAA	TGACGGATGG	TGCATGGAGC
82701	TTAAATTCGA	TGAAGCAGAA	ACATATGAGA	GATGGAGCTG	AATTTGTTTG
82751	CCTGTACAGC	TCTTACAGCA	ATTGCTTCCA	ATTTGTTTGA	TTTACCTAAG
82801	AGCTAAAATT	GTAATAGGCA	GCTCAAATGA	TTTTTCTGTA	CATTCAGAAA
82851	ATGAGTTTGA	ATATTTGTTG	GAGAGTAACT	GCTTAAGACA	TGAAAAAGGG
82901	GGAGATTATA	GCTTTTAACT	CTTTTATATG	GCAGAGCATT	AAGGAAAAAA
82951	AAGTGCAGAT	AAATGAGATC	AAATGGCAAG	TGCTGTAACC	TGCTGGACAC
83001	AAGTCCCGGT	AGCCATTGAT	AGACAGTGTT	TATATGACTT	CTGGGCCATC
83051	AATAGATAGA	TAAGGTACAT	CAGCGGCCAA	TGTTCCAGGA	AGTTTGAGAA
83101	GATAAATGGA	AGTTGCACAG	CAGCCTAAAA	GCTTCCTTAG	GAGGGCTGTG
83151	CTCCTCCAGA	GCGCCATCTG	CCTGTGTCTT	CCTGTTCTTC	TTCTTCACAT
83201	TAAATGCTTT	TCCTTTTCTC	ATTTTATATG	TGGTTATCCT	AAAGATATGC
83251	TAGCCTGGAC	TTTGACAAGG	ACATCTGGAG	ATAAGAAAGA	TTCTGAATTA
83301	TTTTTCCCTT	TGGGCAATTG	TAGCAATTTT	AAAACATATG	TAGATGGCTA
83351	GAGATTCTTG	AGAATATTTT	TTTTCTTGGA	AAATCATAAG	GCTTTGGATA
83401	GTGGTACCTA	TAGAAGCTGA	CATCAGCAGC	AGCCTGCCTC	CAGTCGATCA
83451	GGGCCTTTGG	AACTTCACGG	GGCTCCTCTA	CTGACAGCCC	CATCGGTTTC
83501	CCTCCAGCAC	ACGTAACCTA	GCATTGACTC	TGGGTAGTAG	AGGGTGGTTT
83551	ATGGAATCTG	ATTCTATCTA	GAAAGAGGTG	GATGCAAAAC	CATTTCCAGA
83601	GCAGAAGGCT	TGGCATGTCT	GGTCTTAGGC	AGAGGGAAC	GGAGATACTT
83651	GTCTTATGTT	TCTTGAGATT	CCAGCAAAAA	TAGCCCATTA	CAGAGGAAGA
83701	AGATATCAGG	TCAATGAAG	GCTTTGGTGC	TACAACATTG	TCTTAGAAAA

FIGURE 3Y



Docket No.: CL000891
Serial No.: 09/804,474
Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

83751 AAAAAGAAAG AAATTGGCCA AGTGCAGTGG CTCAGCACTT TGGGAGGCTG
83801 AGGGGGGCGAG ACCACTTGAG ATCAGGAGTT CGAGACCAGC CTGGCCAACA
83851 TGGCGAAACT CCGTCTCTAC CAAAAAGTAT TAAAAAATAG CCGAGTGTGG
83901 TGGCGGGCTC CTGTAAATCCC AGCTACTCGG GAGGCTGAGG CCGGAGAATC
83951 ACTTGAACCT GGGAGGCGGA GGTTCAGTGG AGCCAAGATC GTGCCATTGC
84001 ACTCCAGCCT GGGCAACAGA GTGAGACTCC ATCTCAAAAA AAAAAAATAA
84051 GAAAAAGAA AAAGAAAAAA GAAAAAGAA AAATTAATTT AAAAAAATG
84101 TTTTAAAC AAAGGAAGGC TTTGGGCTTG GAGTCCAACCT AAGCTAGGCT
84151 GGAATCCCGG TTTCATCTCG CTCTCTCTGT CAACTTTGGA TTTTACTGAA
84201 TCTCTCTTAT TCTCAATTCC CTCTCTGTGA AAATGAAGAT AATGCTAGTA
84251 CCTGTCTCAT CAAGTTGAAG GAGACTTAAA TGAGATGTGT TGAAAGCATT
84301 TAGCATAGTA TGTGGCACAT AAAGAACACT CAATAAATGC TGGCTATAAA
84351 GAAGCCAGAG AGAGACTCGG AGGTGATGAG AGAGGCCACA ATTCCTCCA
84401 TTTCATGCAA AAGCAATTTT TATTATCTCA TTTGAAAGGC AGTATAGTAT
84451 AGTGGTTAAG GACATGCACT ATGGAGCTAG ACCTCCTCAG TTCACTTTCT
84501 GTCTCTATCA TTTATTAGCT GTGACTTAAC CTTCTTGTGC CTCAGTTTTT
84551 ATCATTTTTG AGAGAGGAGT AATAATAGTT CCTACTCTGG TGTGTGTGG
84601 AGATTTGATG AGTTAATACA TATAAAGCAC ACATAGTAGT GCCTGGAGCA
84651 TATTAAATGA CATGTAAGTA TTAGCTGTGA TTTTATTAAA CAACATGTGG
84701 CATAGGACAT ATTGGAACCT TGAAGTCTTT GAGGCTCTTC CCAGTTTCAT
84751 AAATCAGAGA CTACAGTATA AATATCTGCT TACATGTCTG CTTTCCCCAT
84801 TGGACTGCGA AATCTTGAAA CTGTTTATTT CATCTCTGCA TAGCGTTGGC
84851 ATCGTATTAT GATACCTGAC ATTTACCAGG TGCCAAATGG GACTGGGCAT
84901 GTTGTAGGGA TTCAGTCAAT GTGGGTCAAT GCAGGCGGGG AGGTGGGTGG
84951 GGTAAAGGT AAGAGAAGGG CCTTGGGGCA TCACATTAAG TAGTTACCAG
85001 ATTGAACCTG AAGCAATTGCT ATCCAGGAGA AATCAGGTCA ATATTTACC
85051 TTCATGGCAA TACCAGTACA GTCCAAGGAG AATGCATAGA AGGAAAGAAA
85101 TCATAATCTG ATTGTATGTG TTTTTTTAGT AGTAAATAAT AATAATTATT
85151 ACTATTCCTA TACAATTTTG TGTGTGTGGT TGTTTTGTGT TGTGTGTGCAT
85201 GAAAAATGGG GTGCTAATCT ATTCCCTTC CCAACACCAG TGCTCAGAAG
85251 AAATTTCCAC AGATAGAGAA GCTATAGGTT ATGAATTTGG CTTGATGGA
85301 TTCTGGGTCA CTATTTCTCA ATGTTTGTCC ATGTCATGTG AAGCTCTTAA
85351 GATAAAGAAC AATGTCTTAC TCGTCTTTT AACTTCTTTA CCCCCAATG
85401 CCTATCACAT ACTTTGCCCC TGGAACTCA ATAGACATT GTAAATGGAA
85451 TTTAATTTCT GAGGTCCAGT AAAGCCTTTT TCCATCCTTC CCCTACTACA
85501 CAGTTTGTCT AACCATGTCT TCCCTCCAT CATCCACCTT ATAAACGTTA
85551 TFACTCATTC TTCCATCACA TTCTTGACAC CTCCCATGTC CAATGTCAAA
85601 CAAGTACCAT TTGGGAAACA GAATTTCTAGG AATCTGGAGA CCTAGAGCTC
85651 TTCAGACCTT GAAATCCAGT TTTCTGAGCT GAGACAGTTT CTTAATTTCT
85701 CACTCCAACCT CCGTTTCTCC TCTTTCTCAA TGGATATTTT CCAAGTCTCC
85751 ATTAGGCATA TAGCAATTCC AGAAAACATT CAATTTTCCC TTCTCTTAAT
85801 GCCATGCTCC AAAACACCAC ATTCCCTCTA GACATTGAGC ATTTGGAGAA
85851 GATGGAAAAAG TACTTTGAAA ATGTGTGCAT GTGAGAAAAA TGCTAAGTGT
85901 TCTGTCTGGT CACTTCAATG ACAAGTTTGC TACTTTAGAA ACTTGACTAA
85951 ACAGAGTGTG AGGAAAAACA TGAAAAAGAA AAAATGTGTT CAGCTTGCT
86001 GAATAATGAC CAGCAGGGTG AAAAGATAAG ATAACCACC GCTCACAGGA
86051 TTTCTATCCT CAAGCCCTAG AAGGTTGACA ACAGCAGACA CTGAAACTAC
86101 TCTTAATGGA GGGTGTGCTA AAGAAGCAAC ATTATAGCCG CTTTATAGGAA
86151 AGCAAATAGG AAAGTTGGTG AAATAGAGAA GATGCCAAG CATGTGAGAT
86201 ACCACCTCCA TCTTGGAAAA TAACCAAGGT GATACAATGT TATGCAGGAC
86251 CCTTAATTA AAACAGATTT AGTGATTAAT ATCAGGAGCA TTGTCAAGAA
86301 TCACAACAAC AGCAATTAGT TACTATTGAG CAATTTCTGC TAAGTAATTT
86351 GCAGGAGGGC ATCTCACTTA ATTATCACAT CCTTTTATAG ATGAGAATAT
86401 AGAGGCTTAA AAAGTGCTTT TTCCCAATGT TATTGAGCTA TAAGTGGTCA
86451 GTCATGACTC AAACATAGGT CAACCTGACA ACAAGATCTT CACTCTTAAC
86501 TTCTCTTCTG TGTGTGAATA CCCTTGATCC ATGGAATGG ACCATCTTCA
86551 TATACGTCTT TTTTGCTCTT GGAATGTCCA GGTATGGATT GGGTAATGCT
86601 CAAAGACAGA GAGGAATAGA GTATTAAAAA GATCCCTGGC CTCATTTTCT
86651 GAAGACATGA GCTAAGCTG AGCTGTACCA TTTACCATCT ATGTGAACCT
86701 GGGCAGATTT TTTGACACTG CTGGGTCTCA ATTCTGTAA CTGTCAAGTG
86751 GAAGTGAGCC TAACATGATA GACTTCACTG GGCTGTAAAG AGAATAAAAT
86801 GAAATAACTG TAAACAGAAG TGCCTAGTGC ACATGCAAAG GATTATTGGG
86851 GCTTTCTACC CTTACGGGAT TAGAAGTTGA TAGTAGGCAA CAAGTTATAA
86901 GAAATACAGT CAATTGTCTG CTGACCAGGG CTAGAGTTAA TTGTCTCTGG
86951 AAAAAAGGAC TTGCCTCTCT TTCTCTTCTT CCTCCAAAAC TTAAGACGTT
87001 TGCAGCTGAA TCCCCAACAG GATTTTGTGT TCCTTTGGGA GAGAGGAAAC
87051 AGACCAATAT ACCCCCAAAA CTAACCCCAT AATTTCAATT CAGCAGTAAA

FIGURE 3Z



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Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

87101	GTGAGGTCCT	TGATAACTGC	CCTGCCCAAC	CTGCAGGGTG	GTTGGGAAAC
87151	TCTGAATGGT	CATGCATGGG	GAAGCATTGT	GTCCACTGTA	AAGAGCTCTC
87201	CGGAGATGAT	AAATCTCATC	AGAAGGCTTC	ATGCTTGAGG	CATGGATTCT
87251	TGGAAAAACA	ATCACTCTAC	GTATGTGGTC	AGAATCTAAA	GGAGATGCTG
87301	GGGAGAGGAG	CTAGGTCAGT	CTCCAAAGTG	GAACAGTAGA	AACTAATCAT
87351	GTGGGACCTA	AACCTATGAA	GGTTTATAAA	ATCAGAAATG	GCCACCTTCC
87401	TTTGGACCAT	GAGCTCAGAT	TGTGAGGTGT	GAAGGTCAT	CGTCTCCTTC
87451	CTGCCCTGT	TTCCCTCCTC	TCCCTACCTG	TCCCTCCTTG	ACCCACAGGAA
87501	AAATTGCCGG	GATATGAAAG	TTAATTATGA	CCCAAGGGAA	TTGGTACAGA
87551	TGGGGAAGAA	AGAAATGCAT	TCAAGAGCAT	TTCCATCAGT	ATTGAAATTA
87601	CACAGAAGGC	TGGTGAATTT	GGGCTATCCA	TTCTTGCCCT	CCTCTGTGCC
87651	CATAATTCCT	TGGCTCCTTT	CAATTTCATT	TTCCCTTTGG	TTCAGAGGAA
87701	TGCTTGATGG	CTTAAGCTAG	CCTCAGTTGG	CCAAGCATTG	GAGAAACAGA
87751	GAGGTGTATG	ACACAGCTAC	ACTCCCATGG	GGCTTACAGG	GCAAGGTGAG
87801	AGAAGACAGA	AGTTGTATGT	GCTGGGTGCC	ACGTGGTAGC	TACAAACTAG
87851	AAATGAGACC	AGGTTCGGAA	GAGGAAGAGG	GCTTGCAGAC	CTGAGTCATG
87901	GGGACAGTTT	CTTCAGGAAA	TGGGATCTCA	GCTCTGCCCT	GTATGCAGGG
87951	CTTACATAAT	AAGATGTTT	CATTGTGTGT	GTTGTATTAT	TTGATTTAAT
88001	AAGATTTTGT	TTTAAGAAGA	TTTGTAAAA	ACAACGAAC	AAATGCAATC
88051	TCCTGCCAGA	GCAGGCAGCA	GCAAAGGAGA	TTAGGAATAT	AACCCCTTGT
88101	GAGACGTTCC	TTACCTTACC	TGGTGCTGGA	TTACCTAAAA	GCTTCAGCTA
88151	AGTAGGGTCA	CCCCCCCAAG	AAATTATTTT	AAAAAAATG	AAATCTGATA
88201	TTTTTAGAAA	ATCTTATCAA	GGATATTTAA	TTGGACTATT	TACACCTATT
88251	TAGGGTCAGT	CGGTTTGGGA	CAAGTATGCA	GGGGCTTGG	AATCAGACCA
88301	CTGGGGTCAA	ATCCTAGTTC	TGTCACCTCC	TAGCTGGGTG	ACCTTGGACA
88351	AAGTTACCTG	ACTTCTAATA	GCTTCAGATT	CCTCATGGGC	AAAATAGAAA
88401	TGCTACTAGT	ACTTAATAGT	GCTCTGAGAA	GGATTCAATG	AGAAGGATTA
88451	AATGTATGTA	AAGCACAGTG	TTTGCCCAT	GGAAGCTGTT	ATTTATAAGG
88501	GAGGGGAGCA	TCCTAAGGTC	CTCCGAATTT	AGGAGAATA	AAAATCTTAC
88551	ACTGACTTCT	CCCTTCAACA	GCACCTTCAG	AATCTCCTTC	ATTTTTCATA
88601	CTGTTCTTTT	AACCCCTTGA	TGAATGAGAA	ATTAGGCATT	CTTCCCTGTC
88651	AGATTTTCCC	AAACCTTCTG	CTTTGGCCAA	TAAACATATT	TTTAGTCCCA
88701	ATCTTGACAT	CTCCTTTGGG	ACTTTTCATC	TGATAAACAT	CCCTCCTGCT
88751	GCTCTTGAAT	CCAATACCTT	TCTTCCCTGC	CCTCCACCCA	GAGTCTCCTT
88801	GTATCTGCTG	TTAGGCACAA	TGATGACCCC	ACCAAGGTCA	GACAATGGCT
88851	GTGGCCTCAC	CTGGACCTTG	ATGACCCACA	TAGCCTAGAG	CCCAGAGATC
88901	AGCCACTGAT	GGAGGCCAG	AGGGCAGTTG	GAAACTTCA	CAAGACAATC
88951	CAGCCTGATT	GTTTGTGACAT	GCCTGACTTC	AGGCTGTAA	AAATGAGCTC
89001	GAGGAATCAG	ATAGGAAAAA	GAGATAGGTG	ATGCAATTTT	ATTCCATCTC
89051	CCAATTTTCT	GAGTCAAGAG	TTGTTTGT	AACTCCAGTT	AAATTAGTAT
89101	TTATCCAAAT	TTCTTGGGTG	CTTGTCCAAA	GAAAGTACC	CCAGATCTAC
89151	AAATTAGAAT	CTGGGACTGG	GACTTAGGAA	TTGGCACTTT	TACAATTATA
89201	CCAGATGTTT	CTAATATGAG	TACTTCAACC	ACTACCCCTA	TAGAAGTGCT
89251	GCCTAGGACC	CTCTCTTCTG	GCAGGTGAAG	TGGAAGGAGG	TTTGTGCGAA
89301	GGGAGATTCT	CCACTTCAAC	TTGAGTGTCT	TGGCTTGTAT	CCGCTTTGTT
89351	TGGTTCTATT	TACCAAAGG	CTTTCATCTT	CACATAAAT	TTCTTCAGCT
89401	TTAAATAAAT	AGTTTGTGTA	ACCATTTGTA	TACTGGAAG	AACATTAGAT
89451	TTGGAGTCCA	GGTGGCTTGA	GTTCAATTCT	CTGCTCTGCC	ATTTACCAGC
89501	TGTGTGACAT	TGGGCAAGTT	GCCAACTTAT	CTATGTCATT	TCCTCATGTA
89551	AAGATAATCC	CACCTCACCA	GGCCACTTTT	GAGGACCCAG	TGAAATGATG
89601	TGTAACCATT	TTAGGAACAC	TGGATCATT	TACAGTGCAA	TTTTTTACAT
89651	CAGCTTGGAG	CCTACCATGT	AGGCATTCAA	ATCCACTGAG	TGTATGGAGC
89701	TCCGTGCACA	AATAAAAGGA	CTTCTCTTTT	CTGCCCGTGT	ACAACCTTGG
89751	TTTCTTAAAT	CAATAGAATC	CATGACAATC	CTGGGCCATG	GTATAAAGAT
89801	GGGACTTTCT	TCCTGTGAAG	GAGTCTGGTC	TGAACATCTT	CCAACTCCA
89851	ACATAACTGA	TGTCATTTCT	CCACCCAACC	CCATTGTCTG	TCTCCTGACT
89901	CAATTGCTAG	AGAAGCCACT	TAAGGAAGGT	TCCTGGAGTT	AAGGCTGTGT
89951	CTGGGCCAGT	GTAGCGAGCA	GTTTTCAACA	GTCACTCTC	TTTATCTTCT
90001	CTTTTCTG	GAGCCTTTAC	TAAGCACTGC	CTCCTCCTGT	CTCCTTACTG
90051	CATCTCTGTA	TGGAATGCAC	AGGTAAATCT	CCTTGGAGAG	TACCAGCCAG
90101	GAACAGTCCA	CAGCCAAGGC	CACCGATCCT	CACCGCTGAG	CTCCATCTTT
90151	CCTTTCAAGC	TGTCCTTTCC	CTCCCTCCC	CACCATCACC	ATAGCAACAC
90201	AGTGGTATAA	AAAAATGAAA	GCGCTAAGGC	ATCTAAATAT	AGTCTGAGTA
90251	TCAACTCTTC	CAGCATGGAG	CCGAAAACCT	AGGGAATGAC	AGCTAGAGGC
90301	ATCCAGACGA	TAAGTGGCAG	CCAGGAGGGT	GGATAAGTCA	AAGGAAGGGG
90351	TCAAGGAAAG	AGGGGAAGGA	AAGGGAACCA	TCACTTGCTG	AGCCTGCTGC
90401	CTGTGCTTTC	TCATGTCACC	CGCACGACAA	CCCAATGTGA	ATGTTATCAT

FIGURE 3AA



Docket No.: CL000891
Serial No.: 09/804,474
Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

90451	CTCCAGGTAA	CTGCTGAAGA	AACGGAAGCT	CAAAGAGGTA	AGAGATTTGG
90501	CCAAGGTCAC	ACAGCTATAA	GCAGTAGAAC	TAAGATTTTA	ACTCAAGTTT
90551	CTATGGCCCC	AGAATTTATG	TGTTTCTCTC	TCCATACCAC	AGGGACAGGT
90601	GCAAGTGAGA	GATTTTGCTG	GAAGCACTGG	GCTTTTGTAG	CAGGCCATAT
90651	AAAAATTCTG	AGCCGAGAGC	TCACTAAAT	TATTGGAAGA	GACTGGGCCA
90701	AATATAAGGC	TTCTATCTAA	GCAGCACCTG	TGTTTCTCAA	GGACTGAGGA
90751	AAATGAAGGG	GGAGGGTTGG	CAAGGCTGCA	TTTCCCAGGG	TGCGTGATTA
90801	TATGGCATGG	GGGTGGGGGC	CATTATGATG	CCCGGACATG	GAACCTACAC
90851	CAGTGCAGAA	AGGGTGTGAT	TAGAAGCCCT	AAGCCAGAGA	ATGTTCACTG
90901	TGATAAATGC	CATTATTTTT	TCCCTCATTC	ATTCAATAGA	TTTTTTTTTT
90951	AGATGGAGTC	TCACCTCTGTC	GCCCAGGCTG	GAGTGCAGTG	GCACCATCTC
91001	AGCTCACGGT	AACCTCTGCC	TCCTGGGTTC	AAGCAATTCT	TGTGGTCCAG
91051	CTTCTGAGT	AGCTGGGATT	ACAGATGTGC	ACCACCACGC	CTGGCTGATT
91101	TTTTTTTTTT	TTTTTTTTTT	TGTATTTTTT	AGTAGAGACA	GGGTTCACC
91151	ATGTTGGCCA	GGCTGGTCTC	GAACCTCTGA	CCCCAAGTGA	TCCACCCACC
91201	TCCACATCCC	AAAGTGCTGG	GGTTACAGGT	GTGAGCTACC	GTGCCTAGCC
91251	TCATTCAACA	GATATTTTAA	TTAAGCATCT	GATGTGTGCT	TAACCTCTGA
91301	AATATAGGGC	TGATAGAAC	AAATGCAGCT	CCTGCCCTTG	TAGAGCTTAT
91351	TAGGATAGTG	GAGAAGACAA	ATAAGGAAAC	AATTATACAA	TTGATTGATT
91401	CTTTACAAC	GTAACATGTA	CTATAAGTAC	ATAACAGAA	AATATCACTT
91451	GCCTGATGAC	TTCACTGAAA	GGGAAATACA	GAAGTTCTTA	CAAATCAAAG
91501	CAATCCCTCT	GGCCCAATTG	AAAGGTGATG	CCCACCTTCA	AGGTGGACAG
91551	AGACTGTGCT	AGAAGCTTAG	CCTCAACCAT	GGGTTTATAT	GATTGGTAGA
91601	CCCTGCAGAT	CCATTCCCAA	TGGTGATATCT	TCATACTAAT	CATGAAATCC
91651	ATCTAATAGC	CATACAAGTG	AGGTPTTAAA	ACCCAACAAA	CTAGACTCAA
91701	ATGAAATCTG	ATGAGGGAAT	TTATGATTTG	TTCTTCCTAC	AGCCTTTGGT
91751	ATCACTGACA	TAAACTGAA	TGTATGTGCT	GAGGGTGTCT	GTGTCTTGGT
91801	GATAGACAAG	GTAGGTGGTC	CAGCCCATGG	TACTGGCAGC	TTAAAGTCAG
91851	CCAGCCATCA	GTGGGAAGTG	CCTGTGAATT	ATGCAGGAGT	GGGAGGGGAG
91901	GGAGTAGGGC	GTAAGTAAT	GCATTCTGT	GGATCCAAAG	CTTTCCAAAC
91951	TACCTGCAAG	TCAGCAAATA	TGGGGGATGT	TGTATGACTA	AGTGAGAATC
92001	AGATAATATA	ATGTGTATGG	AGCTCTTTAG	TTCTTCAGAA	AAAATGCTG
92051	TCTAAACAAA	TAGTGTGAT	ATCAAAGATA	ATGATACAGT	ACCCTAATTT
92101	TAATGCTCTG	CTACCTACCT	GCCAGCTGTT	TCCCAGGGAT	GTGGTAAGAA
92151	TGAATGGGCA	AGATCTGGGA	AAGTGTTTTG	AAATCCTTGA	TTAAAGGCCC
92201	TCCAGGCAGA	TGTAGAATTT	TAAATGTGTT	ATATTACTGC	CACTATTGTT
92251	ATGCTTTCTT	TTATCACCCC	AGAATTTTAC	CATCTCCTGT	TTCAGGTGAA
92301	CGAGTCTGCG	TGACTCTTAC	CTGCCCTGAA	TGGCATTGGA	AAGGTAGCAG
92351	CCCTGAGATG	TGCCATATAA	ACAAACATGT	TTTTAACCBA	GGGATCAGGA
92401	GGCCTTCCTG	GCTGGCTCCT	GTCAGCTGGT	CATCACCTCT	CTATAACTCT
92451	AGGCTTTCCC	AAGCTTATTT	TATTTCCATC	AATAGGACAG	GAATATGTAA
92501	ATGTCCTGCT	TGAATGAGT	ATTGGCTACA	AGCCATCTGC	CTCTGAACAG
92551	AGGTGAAAAG	TGGAAATCGG	AGGAAGGGCA	GATGTCTTTT	GCAAGGGAAA
92601	CAGACTGTTT	TCTGCCACTG	CACTCTGCCC	AGGCAAAAGA	GTAAGGAAC
92651	AGCACTCAGG	AGAATTCAC	GAAGCGAGGG	CAGGGTGCAA	AAGGAACTTG
92701	AGAAATTGGT	ACTGGGACCC	AAAATCAGAT	TCTGGCATT	CTGGGAAAAG
92751	AAATGGGCAT	GGGTGGGGT	TTTATCTGTC	AATAAAAGCA	TCCAGAAATG
92801	GGCTAGAAGG	AAGTAAATTC	AGTTGCCACC	TCTGCCTACT	GGACAGCCAC
92851	GGAGAACTTC	TCCTTATCCA	AGGTCGAGGA	GCCCTCCGGA	GTACATAC
92901	ATACCATG	TTCTCCCA	CATACCCCA	TGGAGATAAA	AACAGGACCC
92951	TGGAAGCCCT	GTCCGTGTTT	AACCAATGGG	ATTGAAACAT	GGAAATGAAC
93001	TGCCCCACAA	TCCACCCTGT	GAGAGACCAA	AGAGCAGTGT	TGGATTAACA
93051	GGGAATGTTA	CCCTGAAAAG	GCATTTCAGT	TCCACTGGGG	CAGCAGGTAC
93101	AGTGCAAAGA	TGATCCCACT	TAAATTCCTA	AGACAGGAAA	TAAGGAAAGA
93151	TGTTGTGGAA	ACTCAAGACC	TCTCAAAGCA	TACTCCTTTG	TAGTTCTTCC
93201	GCAGACCAGA	CCACGGAATT	CAGAAAACAC	CCTACCTGGT	TCCAAACCAG
93251	CACCTGCCAA	ACTTCTCACC	CTCTTCTGAC	CCTGTCTCTG	GAGTTAAGAA
93301	AAAAAAATC	ACTTTATTGG	TTGCTCCAGT	TATAACTTAA	ACAGACAGAC
93351	CATCATCAAA	TTCAGTGACA	TGTACGACTG	CTTATGTGAT	GCCAGTTACT
93401	GTGCTGTGGG	GTTTTGGTTC	CATTATCTCA	TTTAATCCTC	TCAAAAACCC
93451	TGTTAGGTAG	GTTTTATTAT	TGCACTCATC	TTAGATTAAG	GAAACTGAGG
93501	CTCATAGAGA	TTCCGTAATT	TGTCAAAAGC	CCTAAAACAT	AATTACTGCC
93551	TCCAGATGTC	TCTGATTCTA	AGGCCAGGGC	TCTTAATCAG	TAAATGATCA
93601	AATGAATAAT	GATTTTCATG	GCATCTGTCA	TCCGAAAGAA	CAATGGAGAA
93651	TATGCTTAAC	CAAAGTCATA	ACCAAATAAA	TGAACCTTAC	AGCAGAGCCG
93701	TGATTCTAGC	CAAGATGACT	ATTTTCATGC	ATGTTTGTAA	GGCCAGGAAA
93751	AGGAGGTAG	ACTTGTGTTG	GAAGGGAAAC	AGGAGCTATC	AAGGTGAACT

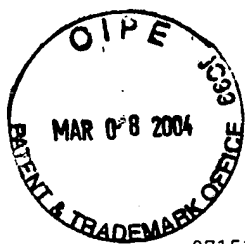
FIGURE 3BB



Docket No.: CL000891
Serial No.: 09/804,474
Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

93801 TTTCCTAAGA GTAGCCCAAT AATAGTGCTC GGGAGGGAGT AATGTGTGCA
93851 AGAATAGAGT CAGGGAGACC AGCCAAGTGT GTGCCTCAGC ATCCCTAGCA
93901 CAAATCACAC ACTAAGCATT AAGATTGTCT CTGCAGTGAG AAAGGCCTGG
93951 GACCAAAATTT GGGCTCCACC ACTTACTGGT ATTCATTAAT CATTCATGCA
94001 TTCATTCAAC AAATATATAT TCGGTGTGGT CTATGTGCCA GAGACTGTGC
94051 TGGGTGTCTGG CAAAGAACAC AGACAAGGTT CCTGCTCTCA TGGAGCTTTT
94101 ATTCTGATGA AGGAAACAGA CCACTTACAG ATAAATAAAT AAACAAGATA
94151 AAGGGAAACA GATATGATGG AGAGTAGCTG GAGGGCCAAG CAGACCGGGC
94201 AGACAAGGTG GTGGCATGTA AGCTAAGACA TTTAAAAAGA ACCTGGTCAT
94251 GAGACTATCT GGAGAAGGAA AGCTCCAGGC AGAGGAAGCA GGTAGTGAGC
94301 AGGCCCTGAG GCAGGAATGA GGACAAGATA TTTGAGAAAA CAGAACAAAG
94351 GCAGGCATGA CCAGGCCGAG TGGGTGGTGG AAAAGTAGTA GAAGGTGAGT
94401 GGGGGAGTGG GGGCATCAAG GTCAGGCTTT GCAGGCTTGA TCAGCGTTCT
94451 CACTGTGGTT CTGGAGCCAG CAGCATCAAT GTTACCTGGG AACTTGTAG
94501 GAATGCAAAAT TCTCAGGCCC CACCCAGACC TGCTGAGTCA CAAACTCTGG
94551 GATGGGGCAC CTCATGTGTGT TTTATCGAGC CCTCCAGATG ATTCAGAGTA
94601 TGCTAAAGTT TCAGAATTC TAGGTTGGAT TATGCAGTTC AATTTTAATT
94651 TTAATAAGAA TGGGAACCTA TGAAAGATTT AAGTAGGGGA GCAGCATGTT
94701 ATAATTTTCT TTAATAAATT GTTTTAAAGC ACTCCTGCTG AGGAGAGAAT
94751 GGACCATAAC AGGCTAAGAG AAATGGAAGC AGGGAGATAA ATTAGGTGGT
94801 TATTGCAAGA GGCCAGGTAA GAAGAGAAAG TGGTTTAAAGT AGGGTGGTGT
94851 GACAGAGAAG ACGGTTCCAA GCAGAGGGGG ACCACGCTGA CAAATAAGCG
94901 CGGGCCACTC ACGCAAGCCC AACAAGGCAG AAGGCAGAAG GCAAAAGTGA
94951 AGGCCAGAGA AAACCTGGACA CCACCTTTCC AGAGCACAGT TCAAAGGCAA
95001 TGTCTCAAAA GAAGACACTC CACCTCCTC CCATTTCTCT CCTATTGCCT
95051 AAAAAATAAGA AGGATACGCG GCCTATGGCA AACCTTGGGC AGGCACGTGG
95101 GAGCTGAGCT CTTGCAAAGG GCAGATAGTT CCTCTGGTGA GAGAGAAAAG
95151 GAAGGGCCAG TGAGGAGTGA AGGAAGAGAC GAACAGAGAG CCCGAAAGGC
95201 TGAGAACGTT GTCTGGCTTC CTGAAAGGCT TAAGGGGTTA GCTCTGGAGG
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95301 CACACATGCG CGCACACACA CACACACATA CACACAGTTG AAGGAGACCT
95351 GCAGTTTCCA AAAACAAGAG TTGTATTTTT TTTGTTCATA TCATGACCCA
95401 TAACAATCTC AAAAGAGAAA CAATCTCTTG TCTTCTTGT TTAGGCTTAG
95451 GAGAACCTGT TGAAGTAAG CAGCAGCAGC GGAACCTCAA CTCGACTCTT
95501 CCTACTGTCA TTCTCTCTAT TACACCACAA GGCATCAGAG GACCACTAGA
95551 GTCGCCTCCC TAGGGTTAGG GTTAGGGCAA GGTAATGAA GTGAGTCAGC
95601 AAGGGCAGGA TAGGAACCTG TCTTTATTAA CATTTTGATA TTTTGTATTAT
95651 ATGAGATTGT TTGCATTAAT TGCAACTTTT AAAAAATCATT GCATTAAAA
95701 ATTATTGATC TTGATTACTG AGTTTATTAG TGTACCCTTA AATGTTGCAC
95751 CTCTGACTTA CTAGTCTCAC CCTGATCCCT GTCCTGGATC TATGCCTGTC
95801 TGTTCATAT CAGCCTCTTG CTTTGACCAT AAGAATAACT TCAGACCTTT
95851 AAGCATAGAG AAGATAGGAT TTCTGTCTCC CTTCCCCACC TTTGTGATAA
95901 TCTCAGCTTC TGCTTTTAAA GTCTATCTCC CAAGTAGTTT GCCTACTATG
95951 TTCCTCCCAA GGTCACTAGG TTCTGTGAAA CTAGCAGCAG GCTAGATTGT
96001 CACATTAGCA CAAAGGATCC ACTATTCCTG CAGCCGAGCT GGGACAAGCA
96051 CTTAGGCCCA CTGACTCCAA CCCTTCAATA GCCTGGGACC TACGTTGTCT
96101 CCAGGTGGTA TAAACAAGA ATTTCCCTTT TGACTGGGAG AAAAAGGGAA
96151 GAACTCTAAA TTGGAAAACA GGTCACTCTG AATTCTCACA GGTGGAATTT
96201 TCTGACAACC CCTTTGGGAC CCACAATTCA ACACACCCCA AATGGGGACA
96251 GTAGCTAACA TGCAACCTGT AGGCTGTTCT GTCATCCAGT GCCACTGTGC
96301 TGCACACCAC CAGGGGGCAG CATTCTCATT GGCTTCTATG TGCCTGGAGC
96351 CAGTGCAGT TGTGCAACAC TGCAGCTTTG CTTTAGTGTA GTCCCTGATG
96401 GGTTCAGTCA AGAAAATGTC TATAGAATCA GCTAATCTCC CATGCAGTTA
96451 AGTCTCTAAT TGAATATTT TCTCTGCTCA GCCCAGGGAC AGCAATCTTT
96501 CCTGGATTTG CTATTTACAA GGATCTCTAG AAATATATCCA CCAGAAATAT
96551 GGGCTTTCTC AGAGCTTGAG TGGACAGGGA ATTAAGGTGG AAGGCAGGGC
96601 GTTTTGAAGT CATTTGACCC AAGTCCTGAA GAGCCAGCTC CTCTCTCTTC
96651 CTAATTATTA GAAGGTTTGT TTTGGACCCA GTGTTTCACG TGTATACAAT
96701 ACAAACTTCT CTCTTTTCTA CTTGGATCAA ATTTGTTCTC TCAAAAATAAG
96751 ATTCCCAGCA GTGAGAGAAG ACAAGACAGA GAGATCCAAC ATCTCTAAAG
96801 CCATGAATCA GATAACCAAG CACTTGTTCT CTTAGTGCT GGGAACAGAT
96851 AACTGTGTTA ATAAAATGAT TTTATAGATT CTTCTCACTG CCTTTCCAAG
96901 AAGGGGATTT ATCAACTTCA GGGCACAGCA ATCATTTATT CCCAGACTAC
96951 TGGCATGCAT ATATATATAT ATTTACTTCT CTTGACTTAG AAAAAAGAGA
97001 GAATTGGAGT TGTGAATATT CCTGTCTCCC TCACCCAGC CCCCTTGAAG
97051 TGAGTCAGGA CAAACTTGGG GCCCAAATGG AGCTGTAAGT AACTGAGTCA
97101 CATGCAGAGA TGAAACCTTC ACAGACCCAC TGATATGGAG GTTGAAGATT

FIGURE 3CC



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97151 AAATTCCCTT TTAGAATAA CTGGGTAACA CTCATACAGA GACTACTTTC
97201 AAGAAGGCCA GATCCTCCCT CTAATGTATA GTGCAACGTT CCTAACCTTC
97251 AGCCCACTCC GTCATACCCC CACTCACATG AATACACACA TAAGCAGTAA
97301 TATAAAGCAC TTCCCAACCAT AGGGCAGCAA AGAAGGAGGG AAATCTTTAT
97351 TATGGAAGAG TGGAAGGAAG GAAGGGAAGG GAAGGGAAGG GAAGGGTAAG
97401 AGGAAGAATT CTCAGGGTGA GCAGAGGAAT GACATGTTTG GGGCATAATG
97451 AAGATAATTG AAGTGCAGAG TTTGTATGGA AAAATTTGAA AATATCAGGT
97501 GGCAGGCCAG GCATGGTAGC TCATGCCTGT AATCCCAGCA CTTTGGGAGG
97551 CCAAAGCAGG CGGATCACCT GAGGTCACGA GTTTGAGACT AGCCGGGCCA
97601 ACATGGCAAA ACCCATCTC GACTAAAAAT ACAAAAATTA GCTGGGTTTA
97651 GTGGCGCATG CCTGTAATCC CAGCTACTCG GGAGGCTGAG GCAGGAGAAT
97701 CATTTGAGCC TGGGAGGCAA AGGTTGCAGT GAGTCGAGAT CATGCTACTA
97751 CACTTCAGCC TGGGTGAGAG AGCTTTCTTT TTTTCTCTC AAAAAAAG
97801 AAAAGTTTCT TGGATGAGAG TGGATGGATG GATGGATGGA TGGATGGATG
97851 GACGGATAGA TAGACATTAC AGAGAGTTTC CAATCTTAG GATGAATTGG
97901 AATCCTTAAG TCTTTATTCT GTAAGAAAGG AAGGGGAGAA TAAATTTTGG
97951 TGATTTTAAA ATATTTTCTA CCCTGTAGAG CTACCCTACA AGGCATGAAA
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98101 TTTGAGGTTT TTGGCACTGC CTTGCCTGTG ATCATATCCT GAACCTTAGG
98151 TCCATAATCA TGCAGTTACC TCAGATGTCC CTTTCCCTCT AGCCACAGGT
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98251 TACCCATGGG CTGTGATGCC CAGTTATAAA CCCAGACATT TCAGAATTAA
98301 CAGAATGAGC ATCAAGTCCT CAAATGGGTC TACATCCATA AACATGTCCA
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98401 TAGGGGAAGC CACATCCTCA GTAGGTTATC TCTGATGAGT CCAGCTAGTC
98451 ACAGGTATGT AGAAGCTGCA TGCAGCAGAG GGCTCAAAGG AGGGTCCAGA
98501 ATAGATACCA AAGCAAAAGG GGAGTCTGTG CACGTCTCTA CACGCACCCC
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99251 CATAATCCTT TTAATAACCA AATCTTGAAG CCTTTTTCCT CCAAAGGCCT
99301 TTTTGAATAA GCACATTTAT ACCTAACTTC ATCAGACACC CACTTTGAGC
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99601 TTCTCTTTAT TCCTGGGAAG CTGGTTTATT AGCTCACCAC TGGCTGTAGT
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100151 TACCTATCTA ACAGGTTAGT TGTGAGGATT AAATTACTTA ATATAAGCAA
100201 AATGCTTAGA GCTCTGCCTA GCACAAAATA AGCACTATGT AACTATTGGT
100251 AAGTTAATTT GAAATGTGGT TTCTAGATCT CTCATCATCC TAGTCACCTT
100301 ACTCTGGATG TACTCCAAAG TCCCTCTCAA GATATAGTGT CAGAATTGAC
100351 CTAATTAGTC CAGCATTTGA CTGAAACGCT AGACTTTGAC TCCAGCCCCC
100401 CATCCTTGAC TGGCACTAGC ATTCAAGCCG CTTCTCCTCT TTCCCTGGGT
100451 CTTTAATAGA GTCAGAGCGA CTTCTCCAGG GGATCTTTTG GCCATGGACC

FIGURE 3DD



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Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

100501 AGTAGCATCC ACACACGCTG GGGCCTTGTT AAAAAGGCAG GCTCTCAGGC
100551 CCCACCCAG ATCTACTGAA TCAGAATCCA CACATTAACA AGATGCTTGG
100601 GTGATTTCATG TGCACATTAA AGTTTGAGAA GCACCGCTTT CAGGGACGAG
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100701 CATGGAACAG GGGCCTTCCC CTCAGACCTT GGGAGAGGGG TCAGGGAAT
100751 ATCAGTGTG GGTGTGTTGGT GACAGGTGCG GGTGGGGGGT TCAGTCCACG
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101951 GCTGAGGCG GAGGACGGCC TGAGCACAGG AGTTGAGGCT GCAGTGAGTC
102001 ATGATCACAC CACTGCACTC CGGCCTGGGT GACAGAGTGA GACCCTGTCT
102051 CAATAAATAA ATAAGAAGAA TGAAACAAGA AAGTCTTCT TATGGTTCTC
102101 ATGGTGGTGA GCACAATGTA AGCATATATA TTATCTTAGA ATTCTTCCTT
102151 CCTGTATAAT AAGAGCCCTC TCCAATGTAT TAATCATCTG TTCAACTAAT
102201 AAATGCTGCT TACTCCCACT TTCACTCTAA AGGAACTCAA TGGCTAAAGA
102251 GAACCTTCC CTTTGCAGC ACCCTGAGGA TCAGAGGCCT GATTTGAATG
102301 TCCTCGATGC AAAGGACTAT TTCAAAAGGC CAGCCAGGCA GCCCAGACAT
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102401 GGTTTCCGCA GCAGCTCAGC CAGGTCTGTT CTGGGAACGC TGTGTGCATT
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102601 TGGGGGGCCC AAAAAAATCT GAAAACCTC ACTTGAACCA GTAAAGTTATA
102651 CCCTGGGTTG CTGTTGGAGA GAGCTTCTCT GGAGTAGACA AATGTGGTAT
102701 GTTAAGTAAA CTGGGGATCT AGGTTTGATG ATACTGGGTC TGCACTTCT
102751 TTGTCCCACT GAAATCCTC GGGCATTCCTA TGAAAGTAGC CTTCAAAATA
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103051 ATGCTGCAAG CTTTTGAAAA AAGACAAGTT CTCTGTACTT GCAGAGCTTA
103101 CATCCAGTAA CTAACTAAC AACTTCAGGC TGTGTGAGT GACTGAAAGT
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103201 AGAGGTGATA AGTTTACTCA GAGACGCAAA CGATCAGGAT AAGCACAGAC
103251 CCCGGTGAAG AGCGTCCAG GCAGAGGGGA TAGCAAGGGG ATTGCCCTTA
103301 GGTGGGAAAG GGCTTGATTT GAGGACTGGG AAGACCAGTG TGCTAGGAC
103351 ACATAAGCAA GGGGAGGACG TTATGAACGA GGTCTGAGG GTCAGCAGCG
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103651 ACTCTGTCGC CCAGGCTGGA GTGCAATGGC ACAATCTCGG CTCACTGCAA
103701 CCTCCGCTC TTGGGTTCAA GCAATTCCTC TGCCCTCAGT TCCCAAGTAG
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103801 GTAGAGACAG AGTTTCCCCA TGTGGTCTG GCTGGTCTTG AGCTCCTGAC

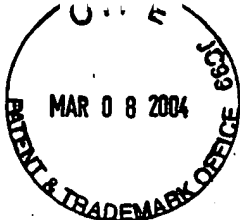
FIGURE 3EE



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Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

103851 CTCAAGCGAT CCACCCGCCT CGGCCTTCCA AAGCACTGGG ATTACAGGTG
103901 TGAGGCACCG CGCTGGCCAA ATGATGGTGT TTTGATCTGG GTCTTAAAGG
103951 CAGAAGGAAG GGGGGTAGTA AATTAAGTGT GCTGGGGAAG AGAGGGAGGC
104001 CTGAGAGTGA GGAAGAATG AGGGGTGATT CCAGGTTTAG GAAAGCTGGG
104051 CAATTTGTGA GATGATGGTG CCATTGACAG AAATGGGAAA GAACAAGTTT
104101 GGAAGAAAAA CTCAAGATCT TCGTGGTGAC TTGTATTAAA CTTAAAGCCT
104151 CATTGTGAC TTGAGCAGAA GTAAGGACTT TCTCCAGTGT TCAAGAGCTG
104201 GAAGGATTTT TTCTAGCCTC CAGGCAAGGT AATACCATAA GTCCCAACAG
104251 TGATGCCCTC CCTGGGAATG ATCTCAATGG GAGAATCCTA TACCCTGCCT
104301 CCTCCATTCA TTCTTGCTC TGATGGTGGT TCTGGCTGGC TAACCTAAGT
104351 TACTCTTGCC ACTAGTTAAC GCCTGTCTTT ATTTCTCTTG TCCCCACCTA
104401 AGATGTCAAT CAAAACAGCA CGAGCCATGC TATGTCACAT GACATGTTGT
104451 CTGTCCAGCC CAGAGCTTGT TGCTGATGGG GGCACAGACT AGATTTTGAG
104501 AGAAATCTCT CTTTACCAC CTTTAAACATT CCAACCCCTT CTAATAGCCC
104551 ATTTAGGATT TATCATACTG TTTCATCCAA ACCTTTTCATG ACCTGATTTT
104601 TATTTCCAGC TTCAACCACC CCTTGGGTCA CCACCTGTAC TTATTGAGTT
104651 TCCCTAGTTT TCTGAATTAA TGAAGAAGA TGATAAGCTT CCCTTACATA
104701 TGACTCTCTT ACCACCAAAC TGGGATTGTT GTTACTCTTA GTGATAATGG
104751 TTGCTATTTA TGAACTTTT AATAGGGAAC ACAAAACCTG CCCAGAAATT
104801 CATATAAATT ATTTTATTTA AGAATATCAC AAAGTAGGTG CTATTATTGT
104851 ACCTTACACG TGAGACTTGA AGAATTTAG AGCATTGCCC AAGGTCACCC
104901 AGCTAGTCTT GGTAGGAGGC GGGATTGAA TCCAGCTCAT CTGTCTCCAT
104951 TACCTGGAAG AAGGAAGGCC AGAGCATCAT GGCCTTTCAC AAGTTGAAGA
105001 GCCACGGGCT TTCTACGGTA GCCAGCCACG CTTTTCATG ACTGGGGTGG
105051 GTGTGGCAAG TGATGAGGTT TGGAGTTCA TGTGGTGGG TGGCAGGGAC
105101 CAGGTGCTCT GGTAACTGCT GTTGCAATTA CTTCAGGAGC AAAGGACCAG
105151 ATCTGATTCT GCAGGATCAA CAATATGGAC ACTGCAGGCT CTGTAGACAT
105201 CCAAAGCTCT AATGTGACT TGGGAAGCT CAGGAGGGCA GGGAGGTTGT
105251 ACCCATTTAG AATGTAAAGA TTCTATTTT ATAAAAAGA AAAAAAGGAG
105301 ACTGAAGGCC TCAGTCTCCT CCAACAAAGC CAGGCTGTGG GGTAGCAGAG
105351 TCTCAAAGGG TGCAGGCCCA TGGCCACTGC CCAGGGCTCC TGCTCAGGCC
105401 TCCTCACTCC CACAAGTGA GGGAGACCCA GTTCCACACC CACCCACCTA
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105551 ACATCTGTTT TTAAGCTCC AATAAATAAA TAAATGAAGG AAGAAAAAAA
105601 GAAGAAGAAA TGCAGAACAG GGTGACTAAA ATGGGCATGT ATTTTAAAT
105651 GTTTATATTA ACAAACTAAC ACCTTTTAA ATGAAAAGCA ATATAATTGT
105701 CTGAGGACCA AAATCATCGT AGGACTGAGA AAGGAATCGT GATCTGAGA
105751 GCCCTAGAGT TAATGTGATC CAGCTGGCTC ATCCCTGTGA CTGCAGAAGC
105801 CTGTTTGGAG ATAGTGTGAG TAGCTTTTCA GGCCCTCTGT GAATTGCCAG
105851 AATGTGTGAC ATGAGCCAAA TTTCCCCCA GCATCCCCGC CGCCGCCACC
105901 ACCACCCCG ATCCACCCCT CCCGCCGGCT CCCATAGAAT AGTCACTGCC
105951 ATACAGAAAA AGAGAAGTTC TACTATTTCT GGGCAAGATT TCCACAAACC
106001 AGTTTGTCCC TTTCTGCTTT CATGAAATAA ACCATTGGA TCAACGTCAG
106051 CTGATTGCAA AAATTTTCCC TTGTCTCAA AGCAAGACTG ATAAGGAAGC
106101 AAACATGGGA GACCTTAGT GGCCGAGCCT TTATGTGTAT GTTATTTTAT
106151 TGCTCTCATA ACTGCCCTGG GATGCTGTAA GCATGATTCA TCCTGTTTGT
106201 TTATCAGTTA AATTATGTAT CCAAGATTAC ACAGCCTATC CAGGATTAGA
106251 ACTCAGAGCC CTCGGCTGTG AAGCTTGAGC TCTTCTTTT CAGTCTTCAA
106301 ATATGATCAT GCCATGAAGC AGCACAAGC CCAGGAGGAG CCCAGTGAGG
106351 CTGGAGGGGT CCACTGGCAG CCACTCTCCT CCGTGCCCTT GTGGTGTGG
106401 GGCAAACTTG GATCTTTCTG AATCTTTTAA CTGTTTCTT CTCTTCCGT
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106651 ACATAACAT TCTTCTCTCC TCTTCTGTTT CTTCTCTCC AACCCATTGT
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106751 CTCTCTGCTC CTCTCTCTG CTCTCTTTT ACTCTCTCT CTCTCTGTC
106801 CTCTCTCTGC CCCCAGCTCT GTCTAACAC CTGCCAGCCT GACACATGGC
106851 ATCCATACGA GGGATGCTCA AGACCGATGG TAATTGTTCT GGGATAAGGA
106901 AATGAGTATG GGGAAAGAAA GAGCCAAAT GCTGGAGTAT CATGTGCGGC
106951 TCTTGGCTTC TCCAGAATGG CTGGGCATAA AGGGGGGAAA AGGGACCACA
107001 TAGCCAGCA CCAGACAGAA GAGCAGCACT GAGAAACAGG CTTTCAGCAC
107051 AAATTTCCAT GGGGAGTTA TTCTCAGGGC TAACTTAGA GTCCAGGAA
107101 GTTGAGAATC AATGTATTG GATTACAGT CATTCCCTC CAAAAGCAG
107151 GCTTTAGGAG CCACCTTATC TGCCATGTTG CTACTATCAA GACTTGTTC

FIGURE 3FF



Docket No.: CL000891
Serial No.: 09/804,474
Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

107201 TCCTCCTGAC CTTGAGGAAG CTGAAAGTAC AGGTTTGAGT TCCAGATCTA
107251 GGTCAAATAT CCATTTGTCT TCCTATGTTT TTCTATTAA GAACACCCAG
107301 GTGTGGAGGC AGAGAGTTAG AATAGTGGTG GAGATCATCC TGACCCAAAT
107351 GGAAGCTTCC CCAAGAGGTC CATGGGGCTT CTCAGAGTGG ATGGAATCTT
107401 TGCCTTCAAC TTCAATGACC CCATACATCC CATGGCCTCC AATAGACAAG
107451 TCAAGAAAGT CTTTCCTGAA TAGATCATAC TGTGGAGCAG GGAGCTGCCA
107501 GTACTGAGGG CAATGTTTCT TCCCCTTCCA AGCTGTCCCT CATGCCCTCC
107551 AGTACATGCC TGTGTGCACA GAGCACCCCA ATCCCATCCC ACAGCAGAGT
107601 TCCTGCAGCA GAGAAACAGG CTCACACCTT GTAGACAGCC CTGGGGTCCC
107651 ATATCTAGGG CCAACAGAAA TATTCCCAA AAAATGCCTC TTGACAATCA
107701 ATGAGCTTTC TCTTTTGTCC GCTGAGCAAG GTATAAAAAG ATGTCAAAAAG
107751 AAGTACCCAA AAAGGTAATA AAAATGTACA GTCGTGATC ACTTAGCAAT
107801 AAGGATACAT TCTGAGGAAG GTGTCCTTAA GCAATTTTGT CATCGTGGGA
107851 AAATTTATAG CATTTACTTT ACAAACCTAG ATGGTGATAG CTACAACACA
107901 CCTGGACTAT GTGGGCTTAT TGCTCCTAGG CTACAAACCT GTACAGCATG
107951 TGCTTGTACT GAATATTGCA GGCAACTGTA GCACAATGGT ATTTGTGTAT
108001 CTAACACATC CTAGACATAG AAAAGGCACA GTAAAAATAT CGTAGTATAT
108051 AGCCTTATGG GACCACTATT GTAGATGTGG TCTGTCAATG AGCAAAACGT
108101 TTTTATGTAG CATGTGACTG TACTTGTAAG GTACACACAC CACAAATGCA
108151 CAGCAAGTCC TGTGCCCTAC AAGCCCCCTT GGGTCAGTCT ACTACATTAT
108201 AAATGGCAAA GCCGAGCAGC CCCACAGAAG GTAGCAGGAA CATCAGAGGA
108251 TCTGAAGAGA CATTTAGGTA AATGCTCTTT ACCCTTTTGA GCATTTAGTT
108301 CTTAGGCCCTC CCTCCCCCA ATCTCCCCC CGCCCCCGC CAAAAAGAAA
108351 AAGAAAAAGA AAGCAGAAAA TTACAATTCT GGCTCACTAG TAGGACCTGC
108401 TAGCCACCAT TGTGATTCCA TGAAGGACCA GAAGAAACCA TATAGGAAGA
108451 ATCAGGCCCA CACGGCAACC TCTCCACATG ACAAAGAGCC AGTCTTTGGA
108501 GGGCAGTGAA TTTCAAGGAA AGTTTCTTTC CCTGGGTGAC TTGTTTTTAA
108551 AAGATGTTAT GTTTTGTGTA GATACCCAGA GATGAACAGA AACTTCCATC
108601 ACCTTGTGCC CCAGACCCAT GATAATTAC ATTGAGGAAA CCAGTTTGTG
108651 AACACATACA CCTTAAGTGA TAGAAGCCCA AAGGTGATTT AGAATTGATC
108701 GATTTACATC ATTTTCTTCA CATTTTCCCA GAAATGCATC AGCTGTAAAT
108751 AGTAAAGGAT TCCTATGTAA TATGTGTGTT AATACATATT TATTTTAGTT
108801 CCCACCCTG AAGCCCTATG AGATAAAGAA TGAGAAAGAT CACACAATTC
108851 TACCTCCCTT CTCTCTCTCT CTCTCTCTCT TTCTCTTTCT CTCTCACTCT
108901 CTCTCTCTCT CTCTCTCTCT TTCTCTGTC TGGTTTTCTT TCCTCATAAA
108951 TACTTTTCTT TTAAATTTT CTTTCTGAAA CTCACAATGG AAGTGAGTAT
109001 AGACATAAAG AAGGGACACA AGCCCTGGGT TCTGTTGACA TATTCCTGT
109051 TGTGGGAAGA CTTTGGGTTA TTCCAGTGG GTTAGTAGTT TACCTGTGTC
109101 CCAGAGAAAT GCCACTGTTA TCATGTGACA CCCAGTGGAA TGTGCTGCCT
109151 GACTCACTTC CTACTAATG TTGGCAAGGT CTAATAATGAC TCCTCCTCAC
109201 CATTAACCCG CTTCTGCCTT CTCTCCCTT TCTGTCTTTC TGGCTCCCTT
109251 CCTTTGCCCA CTTTCTCTT CCTCTGGCT CCCTGCCCTC TCACCCGTAA
109301 GAACAACAT GACCAAGAAG ACAAGAAAA CTAAGACCAT TTATTACCTG
109351 AGAACAACAC AATCCACCAT GGTCTGTGTG AAAGCCACCA TGGTGGGACT
109401 GGACTGCATG TGCCAGGAAT GACGGGGAAT GATTTTAAAG GCTGTGCTCC
109451 AAGTGACCAA CCAATCTACC GACCCAGTCG ACACACTCTC TCTCTTGTG
109501 TCCCTACAGG AAAACCATAA GGGTTAAAT AGTAGATGAG GAGGAATACG
109551 AAAGGCAAGA GAATTTCTTC ATTGCCCTTG GTGAACCGAA ATGGATGGAA
109601 CGTGGAATAT CAGGTGTGAG ATTCTTTAAA AAAAAACAA CAAAAAAGAA
109651 GAAAGAAAAA TTAAACAAA CTGAAAAACA ACAACAAAA AGAAAAAGCA
109701 GCTATATTTT TGTCTCCCTC CTTTCTTCC CTTCTCTTCC TTTCTCTTTT
109751 TGACCAATGG ATTTTTTAT TCTTTTCCCT CCTGTATTCT CGCTCTCACC
109801 CTGTTTCGGT ATCATCTCTG CTTCTTAGC CTTAGCTTAT TCCAAATTC
109851 TCCTTTACCG CCTTCTGGC AGCACTGCAG CCTCAACTCC TCATTACCCT
109901 AATGAGTTAT TTCCCTGTTT TGCTACAATT TTCAATTATT CAATTGCCAT
109951 GGGCCCTGC ACTCTCCCC ACCCCACCCC TACACTGTAA CCTGTAAATG
110001 TGAAATTTCC TTGGTGGGTG GGGAGGAGAA GAAAAAAG GAATGTGATG
110051 CGATGCATGC CTGTGCCCTT TCCTGCCCTT CTCCCCTGCC ACCCTCACT
110101 CTTTAGCCTG CATTGAATGT GGGGGGTCT GGGATGGGG TTGGGGCCTG
110151 GGTGCAATG ATGCTTTGAC AGTTTCTGTC TGCATTCCCC AACTTCCTTT
110201 GAACGCTTGG CAGGTATTTC ACTTGTGGAG TGGCCCATAG GCCCTCTGTC
110251 CCTTCGAGGA GGTAAAGTGA TTTTCTGGCT GTTTCACAGT TGGGCAGACC
110301 GTGGCATGGG AAAGTGTACC AATGTTCAGA AGCCACGGCT TCTGAGAGCT
110351 CTGAGAGAGA GAGTTGACTT CTGGGGTAAT CATGCAATCT GGAATTCTGA
110401 GCTATTCTTC CTCTCTGGG CATCCACCC CATGCCATTC TATGTTCTTA
110451 GCCCAGGTT GGGTGCCTCA TTCAGGCTAC TTTGGGACAA TGCAACCTCT
110501 AAAGCAGAAA ATTGAGAGTT CCTGAAGGGA AGGAAATAGT TCCAGGTATG

FIGURE 3GG



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110551 AAAATTCCCG TAGCCAGGGG CCCAGAAAA GGA CTGACAT TGGGCAGGCC
110601 TGGAGTGTG ACTTGTGSAT TTCCAACAG AAGAGACTCT AAATGATGCA
110651 GTTGGTGTG ATCCCTGACA GACAGGTGTT GGAAAGGTCA CAGATGTCTG
110701 CCTTTGCTTG GCATCTGCAA GAGAAAGTAC CGCCAGATC CCAAGATAGC
110751 CCTCATCCCA CACTAGAGAA GTGGCCTCAT CTCTGCTTT CCTCAGGACC
110801 TGCAATCTGAG AATACCTGCC AGGGGCTCAT CCCTAAAGGA CTGATTATGT
110851 TGCAACCAGG GTAGAAGTAA GGAAGGATTT CTCCCTTGA AGAAAATGAT
110901 TGGAGCCAC TACTTTGAAT GGCTTCCAAT CATTTGGAGG CATAGATGTG
110951 GGAATGGGTT AGGGTGCTCC TGGGAAATAA CAAGAGGACG TTCACACTCC
111001 CATTCAGGAG AGATATGCTG CTGGGAGCCT CCTAGCAAAT GAAGCAGTGA
111051 AATCCACCTG TTTGTCAAAA AGGGGTGATC ATACTGCAAT TAGTTCATAT
111101 TCATGTGACA AAGAGCAGCA TAAACTTTC CACACGAGGA CAGAGCTAAG
111151 AGATTGAGCA ACAACATTCC CAAAGGATTC TCTACAGGCC TTCTCAGTGT
111201 GATTGGTCAT TTCTCATTGT TTCCACATT GTATTCTTGC CCAACTTCCA GTTCTTGCCA
111251 CTCTGTGCTG TGCGCTGGTT TGGACACACC TGATGCTCTA GGGGCAGAAC
111301 TCCTCTCCTT CTCTACTGCT GGTCTCTTTC GTCAACCTC AATAAACCTG
111351 TGCCCTCAGC CTGACTGCCA AAAAGTGCTG GAAGAAAGAA ATTATCTCTG
111401 GTTCTATTGT TTCCACATT GTATTCTTGC CCAACTTCCA GTTCTTGCCA
111451 CCAACAATAT TCTCAGAGGT TGCTCAGCA CCTGCCCTAC CTCATTCCCA
111501 CCTCCTTGA GCATTTATTC CATGTATTCA TAATTGGTTG GAAGCAGCAG
111551 ATACCCAAGG CCAATTGTAA GTCACCTTCA TCAGTTTCCA CAGTCCAAGC
111601 TACTTAGATG CAAACGAAAG CAGCACATGT ACAGCGTACA GGAAGGAAGG
111651 CAGTGGTTCC AGACAAGAGG AAGAGATTGG AAGTCCATAC ATGCCTTTAT
111701 TCCACCAGTA AAAAGGCTCT TCTCTTATGC CTCCCTTAAA ACCTCTACCA
111751 ACAGCAGGAC AGAGAGTGAC CCAAGATAAG TCTTCAAGAG ACCTAACCAA
111801 ATGCAATGT CTCTGGCTAA TCCCATTTA AGGACATCTT CTGTTTTCG
111851 ACAGATTCTT TGCCCAAGGA AATGTCAGCA ATGCCCTCGT GGAGGGAGTA
111901 GGTGAGAAGA CAAGGATTTT AGCAAGCTAT CTGTGTGGTG TGCCCCCAGA
111951 TCTCCCCAGT GACCCGAGATG CCAAGATGAA GAGTGCCAAG AAGAAATTGG
112001 TCAATTTTCC AGCTGCCTAT TTTATTGTCT ATGTTTTCTA GGCGGTAAAT
112051 TTCCAGTTTC TTCAGTACTT CCCGTATTTT GACATTAGAC CATAAGGTGA
112101 AAGGTCATAA AACCTGATTG TCTAGACTCA GAAGCAAATG GAAACCCATC
112151 CAAATTTCCA GAATTCCTTG CTGTTCTCAG AGTGAGAAAC AGAACAGTGG
112201 AAATTGCTTT TCATTATCAC TACTGCATGG GAGAGTCTGA AACATTGAGA
112251 ATGGCATAGT CTTTGCATGG TCAAAATGAC AATTGCATTA AAAAAATGAG
112301 AGACTGGATT TGAAATAGGA GACTCTATTT TTGGCAAACA AAACAGACTT
112351 CAGAGTTGAG ATTAAGAGCT CTGGATGAGC TGGGGGATGG AAAAAAGGGA
112401 AGGAAAAAAG GGAGACTGAA TAGGAAACAC AGTTGCTCTG GAGTCTAGAA
112451 GTGGACTTCC GAGAGCAACA CTGAGCAACA TAATCAAGAC TGTGGGCCT
112501 GGGCCTGGAC ATTGGAAGCC TTCGGATAGA AAGGAAAGCT CTCTGTCTCT
112551 CTCTCTCTCT CTGAAGAATG GGGCCTGTTT GGTCTCTCTT TTTCGACAAC
112601 CGTGGGCTCA TCTTGACAAG CTGCCAGAT GCTTCTAAT TACTCACAGT
112651 CCTATGCTCT TTCCAGCTTG TCCCTGGGGT GTCTGAGCAG GAATAAATGA
112701 CTCTCACCTG ACCCAGGGGA TCAATACAGG GGAAAGTTCA GCTCCAGCTT
112751 CTCTCATGAG CAGCAGCAGG AAAACACCC TCGAGGTATT GTGTGAGTCA
112801 AAGCTGGCCT ACCCAGGTCT TGCTGACCCA TCTATACTG CTGAGCAGAA
112851 AGTCTGGGAT TCATGGAGAC AATGACCAGA GAATGATGGA ATTCCAGCCA
112901 ACTGCAGGCC TTCTCACTAC TCTAGGGATG GGCCAGATGT TCGGTGGCAT
112951 GTATGAGTGA AAACAGGGG ATCAGGGACC TTTCTGGAAG AGCTGCCCTT
113001 GTCTGACCCA CCTGTGTTCA TTTATGTGCT GGGATCTCTG ATCTCCCCTG
113051 GAACCTGGGG GAAGCTCTTC CACGCAAACT CCCGGAAGGA GCAGAATAAA
113101 CAAGCTCTTG CCTATCTATC TATCTATCTA TCTATCTATC TATCTATCTA
113151 TCTATCTACC TATCTGCCTA TCTATATCTA TCTATCTCAA TGTAGTGAGG
113201 AAAGCCATTG ATCCATTAACT CTTTGAATTT CTACATGGGA GATACCTAAA
113251 AAAGTGAATG GCCTTGTTTA TGTATCATGC AGACTCTGGA TCCACATATA
113301 TCTCAGTGGC TGTGAATATA GGATGATTGA TCACAGGCCT GAGTTGCATT
113351 CCTACAGATT CTTAGGAAAA AAATTGATTG ACAGACATGT CCCCCCTGGT
113401 TCCCCACAAA CACACACTCC TTCTCAGCA ATCTCTATCA GTCACCAACT
113451 ACACGTGGAA TATGTGGCAA GCTCTTCCCA GACCTTTATC TGAGAGCCAA
113501 GGAGTGAGGG GCTGTACTAA GATATCATAG AAATGAAAAT GTGGTGTGTC
113551 ACAAGTTTCC TTAATTCTTA GATCTTAAAC TCTAAGAGGG TTCAGCATAA
113601 GTACAAATTC AAGGGCTAGA GACAACCTGT ATTGGGTGTG TCTTTAACTC
113651 AGTTTCCCAA TCCACATAGG GACCTTGCAAT TTGTCTATCT TCATCTATGT
113701 ATAGCTGTTG GTATGACAGT TTCTCTGTTT CAGAATACCT GAACTCTGAC
113751 TTAGCTGTGC CTTTCTGAAA CAGAAAAATC ACCCAACCAG AGATCTATGA
113801 GATCTATGGA AAAGACAGTT GCCAAAATAG ACAGCAAACA GCCAACTTA
113851 ATTGAACACT ACCCATGCA GGGACTTTGC TAAGCAGAGG TGATACAAAA

FIGURE 3HH



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113901 TGGGAGGAGC CCATAGCCCT AACTTCCAGG ATATATCTAC GGTAAAGACA
113951 AACCATTTCAA GGAAACATT CTGCAGGACT TACCTTTTGT CTAAGTCATT
114001 CTTTTAGGGG AAATCAAAGT TCTAGTCAAC GTGGCAGCTA GGAAGGCATT
114051 TGTGGTGTATG GAAACCTTAT GAGCACTGAG AAGCTGAGCA TGAGTTCAGC
114101 TAAGTCGTTA GGGATGGAAG ACATAGACCT GGGCACTGTT CCACTCTTGC
114151 ACAATGCTAC CCATTTCCTT GAGCTCCCAT TCAAGCCCCA TGGTCATTTT
114201 TGCCACTCAT AAGTTAGCTA CTCTGGCAGG GTTGCAACTT ACACAGTTTT
114251 CATGATAACT GGATTTCTAC TCCTTTTTTT ACAGAATGGA TGTGATAACC
114301 TGGTATCCTA CACAGTCATG AGTGACCAAC CTACCCATTT GGTTCCTCAT
114351 CCTCATTCCT CCATTTCCTAG CCTAGGGTA GCCGGGAAAG CATAGGAGCA
114401 AATGCCCTTA CCAGGGCCCT GGTGCTCAGC AGCCTCTCCG GCTGCTCACA
114451 CCTCTGTCTG CTGCTCTGTG CATGCTCCAA AGGCTGCTTT TTGCGTATGG
114501 CTGCTGAGCT CTCACCTACT AAGCTCTCTG CTTTCCTTAT GCTGCCAGCA
114551 ACCACAAAAC CTGGTGATAC TTTCAAGATG GGACATTAAT GCTCTTTCCT
114601 TTTCTTTCTT CCATTTTCTT GGTATCCATT TGCAAACAGC GCTCCTGTTA
114651 TCTCCAGGTA AGAGGTGTCT TGTCCCCCTC TTTTCTTTCC ACTTCTTGCC
114701 AGTGCCATTA TTTGGTTTAA GACCAATGTC CTTTGATTTA TTGAATAAGA
114751 ACTGAGGCTT CACTTAACCT TGACAATTTC TCCCAAGGAC TGGGAGATTT
114801 ATTTTCCAC ATGAAGCAAT TATGAGAAAG CAATTGTGAG GAAGGCAATT
114851 CCTTGAGCAT CACTTCTGTG TGGGGACGTG GGTAAAGGCA TAGCTGATCC
114901 TCTCTGGGAC CAGGAAGAGA AATTAAAGCTT AACAAGGAGA TGGTGGGTCA
114951 TAGACTTCTC CTGAGTCTTA ATTCACTCTG CATCTCATGT TGTGGGGGAA
115001 GAGACAGTGA GATTCAGAGC TGGAATCTCC TAATATAATT GTGACAGGAT
115051 TTGAAAAAAA AATACCTTAA TCCCAAGGGA TCCAGGAAAT AACCAACCTT
115101 GTTGTGAGAA TAGGAAATGC AATTTTAAA GAATCTGGAA TTTTACCAGT
115151 CCTGGAGATC TTCCATCTCA TCACAGCTGA GACTTAAATT GCTAGAATTT
115201 TGGTTCATTT GTCATTGACC CTTAAAGTCC TATGTGCCGT GAACAAGATG
115251 AATTAGGATG GGGGATTGGG GCAGTGTCTT GGCTGGAAAT ATAAATTTTA
115301 GAGAATTTAT TTTGAAGAGA TTCTCATGCA GAATCTAGGT GCTATAGAGG
115351 ACGTACACCT ACTTTGAGAG TATGCTTGCA TGAGTGGAAT CCAATCATAA
115401 ACAACATTCA ACTTCATGAG CAGATATGAA AGCATTTTCA GCATATCTAG
115451 CAATACTATA ACTCTTTGTG CAAGCAGAGT GGCCTACACA AGACAGTTTC
115501 AATATATTTT AAAAGAAGCT CTTACATTTT ATCAGTCTTT TGAACACAGA
115551 AAAAAAAGT AAGGCCACTT AAGAGGCAAA ACATCTTACA GAGTTCATTG
115601 ATATTCAAAG TCACCTACAG GCTACATCTT GGGTTCAGGA AGGGCGGTG
115651 TACATAGTAA GGACATACGC CTTCTGGGAG CCTTAAACAA AAAAAAACA
115701 TGTAGGTAAC TCCTACATTT TTCTTTTGTG GAAAAACAC AGTTACTCCA
115751 GCTTCTTGGT CTTTGTGCTT CTTTTTTATA CCAACAAAT AAGGGCTATC
115801 CTCAACCTCT TGTTCTTCAT TCTTCTCCCA GGGTATTGAT TTCATAACAT
115851 TGGGTTTTTC TTCTCTACTT CACTCATCCT CTTGCCTGTG AAGGTATGTA
115901 AGGCTTCTTT GTTCCAATCT TTTCTCTCAC CCGCCCCCCC TCACATAAAT
115951 GCATAACAA GATTGTGATT TAATTAAAGT TTCTTTCTAC TTTTAACATA
116001 TTTGCAACAA TCAATAGAAG CTAAATGGG AAAAAGGAAA TGTTCCTTTT
116051 CCTAGTCTCT TCAATCTGTA AGCCTTTAAT TTAGGAGCGC TGATTAGCCT
116101 TTCAATTCTG TGAATATCTC AAATACTGGT TTTAATTTTC CTAGGTGGAC
116151 AGAGACAGTT GGAATATGTT CATTCGTAGC TAACCACCCC CCCACCCCA
116201 AGCTCAGGCG CCTTGCAGGA AGAGCACTAG CTACATCACT CTGCAGAGTG
116251 TTCACAACAT CCTATTCTTG TCTGGCCTGG CAAGCTCTTT GTCTTCCAA
116301 TATTTGTTCA ATCTTCCATC CTATTCATAT TCTATCTTTC TCTCCCTCC
116351 CAGCCTCTCT TCCTGTTTCT AGAAGTGAAG GTTTATTTAG TCAGTCTGAA
116401 TATCTAGATC ACCTGCCATT TATCTCTTTT ACTTGAAATT CTGAGGAGTC
116451 ACATAAACAA GATATCAGAA TCACTATGGT CCTCTAAATT GAAGACTTAT
116501 AATTCTCTCA AGAAATTAAC AACATTTGAA TTTAAAGGAA AGATCATGAC
116551 AAAAATAGAA AAAGGCAGGA ATTATTGCCA AACCGAGAAA CTAGAACTA
116601 GAATTAACTT AAAGGCATGT GACTCAATCA ATTAACAAAT ATATACAGAG
116651 AGCCTCTGTG GGAAGTGGG AGATCCAAAG ATAGAGGATT GGTATTTTGT
116701 CAAAGGGATT TTTGCAGAAA GCTAGATGGA AAAACTGACT GTCACCACAG
116751 AGGTGGACAG GTCAGTAAGT AGATCAATAT CCTGCCAGAT GGATATAGTG
116801 CTAGATTGAT AGGTAGACAA GGGGTAGAG AGGTACATTT ATATGCTACT
116851 GGAGAGCTCA TTATATTGGT ATAAAGTTAT TGTGTCACAT GTAAAGTATG
116901 ACATGGGGGA ATTGGGGAGG AAGGAGTGGA ATAATACTGT CGCTGCTAAG
116951 ATAGGCATTG TGATATGGTG CTTAAACCTG CAAGTAAAGG AAAAGAGTAT
117001 GGAATCTGTG TGTCTTTTTC TAAGGGCTTT TTCCAGAGT AGCTTGCAGT
117051 CTGGCTTCTA GGGTTGCTGG CCTATAGCCA GAACCCTAGA TTCACCCAGA
117101 TTTACCTTCA GAATTAACCT ATCAGAGACT CAAATTTCAAT AGACTAAATG
117151 AAGTCAGGCT GCTAGAGGAT GTCTGCTGAC TTGGACATAT GCAGAAAGAC
117201 ATGGATCCTT GAGAAAAACAT TGTTCCTCAA AGTGGCCACC AGCACTAGAG

FIGURE 3II



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117251 GAAGGACAGC ACCACGGACA GCTCCCAGAC ATTTTAGGAT TGCCTTCTGT
117301 GTTTGGTGCC CGAACACTGA GCAAAACAGC GAACTCAGGA AGTCTCCACA
117351 CACTCTCATA CCATCTTCAT GCAGTCCAAC TAAGAAAATT CTACATAAA
117401 ATATAAGGCT GTCTGCTTGG TAATTTAAAC CCTTGGCTTA TAGTCTTTTC
117451 AGTGAATTTT TTTCTTGCA AACTCGAGAG TTGGAGTCTC ACGACTGCCC
117501 TTGCTTCACC AATTCCTCAG CTAGAGACAA AAGACCTTCT TGGCCTCTGA
117551 CCCATTTTGT CCTTGAGATT ATCCAAGGAC TACAGGATTC CCCTAGGAGG
117601 TTTACTGTGT GGAATGAAAG CAATTAAGGA GCTGAATAAA AGAAATAATT
117651 GCATGTGAGA ATGTGGACTT GGATGGGAAG ATGTTTAAAT GAGCTCTGAA
117701 AGAAACAAGC TGCCAAGAGC AATTTTCTAA TTAAAGGGA ATAAAAAGAT
117751 TCAATCTCTA TTTCACTCTA ATCCAGAAAA CATGTCTTCA TGGAGAAGTG
117801 CTCTTAAAAA GGACTCATCA GCCAAAGTGG AAAAACAAAA AACAAAAAAA
117851 CTGTTCACAA TGAGAAGGGA CCATTGGTAA ATGAGTCAAG ATGCTGTGAA
117901 ACCAGTGAAG AATTCCTTTG AATAAATGTA CTTCTGCACC TTCAAGAACT
117951 CTTACAGGAA GTGGTTGAAC AAACAGGCCC AAAAGTTCAA AATAGTTCAA
118001 GGTCAAAACA CTTGCCCTTT CTTCCTCAGT CCCCAACATC TCACTGAGTG
118051 TCTTGAGAAC TTCACTTGAT GCTATTTCTC AGGAGATGTT TAGGTCAGGT
118101 TGTCCACCCA GGTCTAAAAA AGAAAGAGGA ACGCTTATCC CAGTCTGCAA
118151 GGCACATTCT CATGGTCTGG TTATAAAGTG TTTAGTACTT CATAAAAAAG
118201 GCACATAAAA TATATATAAA CTCCCCATTC CCAAGAGTTA TTGCTTTGT
118251 ACCCACTGCC CATGCCTAAT ACTCTGAGCT GTATCCTTCC AGGGAATGGA
118301 AAAGGTGTTA AAGCGAGTCT GATTTTGT TTGTTGCAGAT GTGACAGACA
118351 GGAAGCTGAC TATGGAAGAA GAGGAGGCCA AGAGGATAGC AGAGATGGGA
118401 AAGCCAGTAT TGGGTGAACA CCCCAAACTA GAAGTCATCA TTGAAGAGTC
118451 CTATGAGTTC AAGGTCAGGC AAACAGTGAG GTCTAATTGA ATAATAAATA
118501 AATTAAGTGA GGAGGCAGAA GACCTGGGGT GTTTTTTCC ACTTCACTA
118551 GTGAATATGT GAAGTTGAAA CTGAACAAAT CACTTACCCA CCCAGGTCT
118601 CAGTTTCCCC ATTTGTAAAC TGAACAAAT AGTGCTGACC ATTTGTATGC
118651 TAGGAATATT GTTAGGAAAC ATAATATAGA ATGTGAAATA AGTGGACTAG
118701 AAAGTCTGTA GATGTATTAT CATATTGTT TAACGTGTGT TTAAAGCAA
118751 AAATATTAAC ACTCACTACT ACAGGGCAAG ATATATTAAC ATCATTATTA
118801 TTATTCAATTA TTGTATTATT CTAAATAGCC AATTTCAAAA GTCACAACCA
118851 GGCCAGGCAG TGAGGGACTC ACGCTGTAA TCTCAGCACT TTGAGAGGCC
118901 GAGATCGAAG GGTCACTTAT ACCTAGGAAT TTGAGACCAG CTTGGGCAAC
118951 ATAGGGAGAC TCCATCTCTA TAAAAAATAA AACAAAATAA AAATCAGCTC
119001 AGTGTGGTTG TACATGCCTG TGGTCCCAGC TACTCAGGAG GCTGAGGTGG
119051 GAGGATGGCT TGAGCCCAGG AGGTTGAGGT TGCAATGAGC CATGATTGCA
119101 CCATCCCACT CAGCCTGGG TGACAAAGT AGACCTGTCT TCAACAAAAA
119151 CAAAACAAAA AGATTACAAC CAAAACAAAA GGGAAATAGA AGGATTGCCT
119201 CAAAAGAGAT CGCCCAAGGC CATTCCATGC GTAAGTGTCA GAACACCTTG
119251 GAGACAGGGC ATCTTTTCAAT CCTTTGAAGA ACCAGACTCC TCATTGGTTC
119301 TGAGCATTC AACTCATGG TTCCAAGTTT TTCTCTTCTT AACAGACTAC
119351 GGTGGACAAA CTGATCAAGA AGACAAACCT GGCCTTGGTT GTGGGGACCC
119401 ATTCCTGGAG GGACCAAGTC ATGGAGGCCA TCACCGTCAG TGCAGGTGAG
119451 AAGTGTCTCA GGCTGGCCTT GCTGGGAGAA GCAGGCAACC TCTGAGAAGG
119501 AAGCGTAAAG CCAGGTTAAC AGCCTGCCAG TCCCTAGGAA GGCTTGTGTG
119551 TTCAGTCTTC CCAGCTCTGG TCCTAGGTGC CTGCTTGGAA AAGAATCATG
119601 GCGTATCTGA AAAACATGGT TATCTCTGGT TTCAAATCGT TGTCTGTCTG
119651 TGTGAAGTGG AACAAATGTAC CCTCTCTGAC CTCAATGTCC TCTTTCCAAA
119701 GGGGAACATAT TGCTACCTTT CTCAGAAAAG TAGAAAAGTA CAGAGTCTTG
119751 TATAAAATCC AAACCAATA AATTCTGATT TCTGTCAATC TTTCTTTTCA
119801 TGGGTTTGGT CCCGCTCTTC TGTAATATGT GGGACAATTC TGATTTAGAG
119851 ATGTGGGAGT TAGGAGTTTA TAAATATGTG TGCATTGACT CTCCAACAAA
119901 ACACCTGGA TGATTCCATA CCCCTCCCTC GGCATTTACT GACAGGCTCC
119951 CTCAGTAGTG ACCACAGCA CAGCCGGGAG TCCTAGCAGC CTGAGGGGAC
120001 TGCTGGTTGG AACAGGGACG GAAAAGGTCT CCCAACACC ATCACTATCA
120051 CCTCTCAGCA CCACTGAGGC CTCTGGCCT TGTCTTTTAT TGAGAGACTT
120101 TGTTGTCTATA GCAACCCACA GGGTCATATC CCCAAGGCC CAGAGCCAGA
120151 GCAAAAAGAC AGCCAGGAAG AGAGGTTTGC TGCTGTGTGT GCTGTGTGTA
120201 CCCCCTTTT CTCATCACCT GCTTTAGATC TTTCTAGCTC CCCCTCTGAT
120251 GACCTGACTG TGCCCTCAA GACAATAAAC GGAATGTAGG CCACATCATC
120301 TACCCTGCTC CTTTTACAAA GGAGGGGACT GAGGTTGAGA AATAAGAGAT
120351 GATTTACCCC AGCTTACAGA TTTTCTTCAT GGCAGAGCTG GAATGAGAAC
120401 CCAAGTGTTC TGACTCCTGT TCTTTCAAAA CCCAGCTTCT ACCGGTTATG
120451 CCAAAACATG ACAGAAGTTG CCGTTGGCAA GGCACAGGCA TGCTCAGCA
120501 TACCCTCCCC TCCAGGGCTG CTGAGTGGGC AACTCTGCCC ACATTTCTCTG
120551 GCAAGGACAA TCAAGGCCCA TCCTGCTTTT TCCCATGAGA TGTTTGGAGG

FIGURE 3JJ



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Serial No.: 09/804,474
Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

120601 AGGGCACTGG CTCTGCAGTA TATTCTCGTG ATCTGGAATG ACAGCCATCC
120651 CTCAGGGGAC AGATAATGAC CAGAACCACA ATGGTTATTG CAGCAGTCAG
120701 GTCAGAAAAT TTGAGAGGAG CCCTGCTGGC ATCCAGTGAA GAGTGGCCAC
120751 ACCGAACTGA TTTCACTTCT CTCTTAGAC AACAAAATGC AGCCTGTGCA
120801 TTCTCCTTTC TTTTTTTTTT TAATTATACT TTAAGTTCTG GGGTACATGT
120851 GCAGAACATA GAGTTTGTGT ACATAGGTAT ACACGTGCCA TGGCGGTTTG
120901 CTGCACCCAT CAACCCGTCA TCTACATTAG GTATTTCTCC TAATGCTATC
120951 CCTCCCTTAT CCTCACCCTC TGACAGGCTC CAGTGTGTGA TGTTCCTCTC
121001 CCTGTGTCCA TGTGTTCTCA TTGTTCAACT CCCACTTATG AGTGAGAACA
121051 TGCAGTGTGT GGTTTTCTGT TCTTGTGTTA GTTGTCTGAG AATGATGGTT
121101 TGCATCCTCC TTTCTTTCTG CTCCACTGTC TTGTCCCTCT TAATCTCCTT
121151 CTTTCTTCTC TTCTTTATTC CCTGGCCCTC TCTCTCCAC TCTACCTTGG
121201 TGCCCTGCAT TCAAATTGAC CTATGAGGCA GCCCAAATG TTTCCCACT
121251 ATTTCTGTGC TTGCTGGCCC TGGCCCCCAC CAGCTGCCA GAAGACAGCT
121301 GGAGTCCCTT TCTAGCGGAT GATGCCTGTG GTGCGGGTTG GGCTTGACTT
121351 TCTCATGAAT GATTATCTGA CTTCTTACCC GTTCTCTTGC CTGTTTATCT
121401 TGCCCTTCAGC AGGGGATGAG GATGAGGATG AATCCGGGGA GGAGAGGCTG
121451 CCCTCTGTGC TTGACTACGT CATGCACTTC CTGACTGTCT TCTGGAAGGT
121501 GCTGTTTGCC TGTGTGCCCC CCACAGAGTA CTGCCACGGC TGGGCCTGCT
121551 TCGCCCTCTC CATCTCATC ATTGGCATGC TCACCGCCAT CATTGGGGAC
121601 CTGGCCTCGC ACTTCGGCTG CACCATTGGT CTCAAAGATT CAGTCACAGC
121651 TGTGTGTTTC GTGGCATTG GCACCTCTGT CCCAGGTGAG AGTGAGAGGT
121701 GCTTGAATTT GCAAAGAGGA TTTTACCTGG TTCAAATGAC CCCTGGACTC
121751 CATCTCATTA TCTTCCACAC CATCTCAGAT CTGAACCTAA CAGAGCCTCT
121801 GCCCTTAAAG TGCACAAAAG TCAATCAAAG AGATGAATAA TGACATTAGT
121851 AATGACAGCT AATATTTCTT GAGCACTTTC AATGTGACAG ACACCATGTG
121901 TGTTCAGCAA TTTACACATT TACATTTTCC CCCTGTAATG TTTCCCAAAG
121951 CCCTATTAAA TAGGGTAAGT TATTATCCCC ACTTCACAGA CAAAGAACT
122001 GAGGCCACCA GAGGTTAAGC TACATGCCCC AGTAAGTGGT CCAATTTCTT
122051 AACCTCCACA TTATGTGAGT AGACCACAAA CAGTGAAATT AAAAGAATGT
122101 AGATATTGTT CTCCTTCTAT TTACCTCTGG CGATCTCTGA GAGGTAAAG
122151 ATTAGCCAGC TCAAAGATAT CAAAGGAGAA ATGCCACAT ACATTCTTGG
122201 CCTCCTCTAC TTGGAAGGAC ACTGTGAGTA CAAAGTATCT CTTAGCAGGA
122251 CAGCCAAAGC AAGTTCCACA GCTTTTATCT TTTTATAGGA TGAATTACAT
122301 ACTCTTTCTT TTTCTTAGGA ACACCTCAGAG ACAAACAGAA AGGAGCGGAC
122351 ATTCCTTTAC TCATTGAACA AATATTTACT GAGCACCTAT TATGCCTGTT
122401 ACAGATTGTT GCTAGTTTTT GGGACTATAG TGAAAGGCAA GATACACATG
122451 CTTCTTCTCT CACGTGGAGT TTATAATCTA CTGAAGGAGG CAACTCTCAA
122501 CTACTGTAAT TAAAGTTATC TTGTTAAATC CTAGGAAGAA AAAGAAAGG
122551 TACTGCATAC GGAAGGAAGT TGGGCCTGAA TGTAGGAGTT AGCAGGTAGA
122601 CAGGGGCTGC ACTAGCCAG GTTCTTTACT TAATTCAATT AGGGGCTTTG
122651 GGGCCTCTGA ACTCTGAAC TCTGCCAGGG AGCTGGCATC CAGTTGCC
122701 CAGAAAGAAA CAGAGCACAT CCTCCTGCAG GGAAGTTAGG CTGAATCTCA
122751 TCAGACAGGA CTTTTCTGGC TGGGCCAAGG GAAATCTTTC CTGTACCAAG
122801 CAAACATATC CTTCAAGAGA GTAGCTGAAT TCACATCAAA TTCTAGGAAA
122851 ACCCTTTTCC AAAACCCAG CGCAGGCCAG CGGTATTATT TGTCCTTAG
122901 TGATGCAAGA GATTTAGCTA TCGTGGAAAT GCATCAGAAAG GTTGGAAATT
122951 AGATGGATGA TCCCAGGAAG GCCTGTGGAT GAGATGCCCT GTGATCTCTG
123001 TTCTCCAAGC CTTGGGGGAC CTGAACTATC AGAGGGGAGG GAGGAAATAT
123051 GGGGGAAGC ATAGAGGTGG GAAGAAATAT CAGAGGATCA GAAGCAAAA
123101 ACAACAATAA CAACAGAAAC AAAAACAAAC AAACAAACAA AAAACAAAGG
123151 CCATAGGCAA GAAAGGGTAA GAGGTTTCT CTGGGAGATC TAAAAAAAT
123201 GGCAATAATG AGGTAAGCCA GGCAGATACC TTTGGGCATC TCCAAGTCTT
123251 TGCAATTGGC CAAGACAACA GCTAACAACA TTTGAGGCTT TAAGAAGGTT
123301 ACCCTGTGAT CCACTCATCT GATTTAGTGG CTTTGGCTGA AGCTCTTTGG
123351 ATATAGTTGA AGGTACGGAA AGGGTCCTTA CATGAGGACT TTAGGGTCAA
123401 GTCTCTTGCT AACATCCTAT GTGACCTTGG GTAAATCTCT TGACCCTTAT
123451 TTTTCTTACC TGTAATAATA AAGAATTGGG CTAGATGTCT CTGACAGTCC
123501 TCCCTGTATC TCAATCTGT GCCAAGATCT AAAGTCAAAC ACCCTGCAAG
123551 GCCCTGTGAT ACATATATAA ACCACAAAGA CAGAGCCCCG TCTTCTTGA
123601 GTCCACAGTT CACCTGTCAT GTCCCCATCA TGGTTCCTCA ACATGTCTCT
123651 TGTCCCCAAA ATCCAGCACC TCACCCAGTG CTCATCAGT AGGCATTGCT
123701 CAATAACTGT TGGTGGTTCT TGAATAAATG CCCCATATGA CAGTTAAAT
123751 CAGGCATCTA CTCCAAGCAG CTTCCCAGGG TGTCAAGGTT CCCTGGGGAG
123801 ATATTATGGG ATGGCAAACT TCCCTTACTG AAAAAGTAGT CAAAGGAGAA
123851 CAATAAGCCC ACTCAGTAAA TATCAGAATC GGAAGCCCT TCAGAATCTT
123901 TCAGATCACT GCAGATGAGG AATGGGAAGC CCAGACTAGG GATGTGACCT

FIGURE 3KK



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Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

123951 ACCCAGGGCC ACACGGCTTG CTTGCGGCAG AACTAGGAGT TAGGAGTGCC
124001 CCCCTAGCCC TTGTCTCTCA TTCCTGGGTT CAGCCCACCA GCTCAAGCTG
124051 CTTTTTGGGC ATACTGGAAG ACAAGCCCTG CACACCTTAG CCTCCTACCA
124101 GTTCCCATGT GTCTTTGTCC TTTTCCAGAT ACGTTTGCCA GCAAAGCTGC
124151 TGCCCTCCAG GATGTATATG CAGACGCCTC CATTTGGCAAC GTGACGGGCA
124201 GCAACGCCGT CAATGTCTTC CTGGGCATCG GCCTGGCCTG GTCCGTGGCC
124251 GCCATCTACT GGGCTCTGCA GGGACAGGAG TTCCACGTGT CGGCCGGCAC
124301 ACTGGCCTTC TCCGTCACCC TCTTCACCAT CTTTGCAATT GTCTGCATCA
124351 GCGTGCTCTT GTACCGAAGG CGGCCGCACC TGGGAGGGGA GCTTGGTGCC
124401 CCCCGTGGCT GCAAGCTCGC CACAACATGG CTCTTTGTGA GCCTGTGGCT
124451 CCTCTACATA CTCTTTGCCA CACTAGAGGC CTATTGCTAC ATCAAGGGGT
124501 TCTAAGCCAC ACAACAGAGC CTCCAGCAGG GCAGGCTTAG GACTTCTCCT
124551 AAGAGAAGGG CACTTCCCCA CCAGTGATCT CTCCGACTG CACTGCCCTG
124601 GAGAGGCCGT ATCAGGACCT AAGCCCCAGG AACTTCACCC AACTTAGGCC
124651 CTGGCAATTA ACTGAAAGGG CAAAGTCTTA ATCAATCAAA CAATGGAGGA
124701 ATCACCGACT TTACACAGTA TTTAATTGAA TACAAACAG CAACAGCAAC
124751 AAATCCACCT CCACCCATC TCCCCCTCAT ATCCCTGACC CAAAGCAAAG
124801 GTACAGCCCT TTGCGCTCCT TCTATTCCAT CTTTGTGATTA TTCCTTTGCC
124851 TCTCATTTCT TTGGAAGCAG GGTTCCTCCT CTCTGCCCAA TTCCATATGT
124901 CCCTATTATC TCACTCAGCT GACAAGACGT GAAATAGAGT CACATTATG
124951 TGGCTGGGGT GGGGTTCTTT TTTCATTGTA ATCATTATTG TGGTTGCTTT
125001 CGTTTGTCCG TTAGGTTTTG CTTATTATTT TGTTTTGCTT TTTTTCCTG
125051 AAGTGAGTGA AAAAGGTGCC ACAAAGGAAT TCCAGGTCCG AGCCAACAGA
125101 GAGAAACATG AATTTTATGA CACATGCTCT CCTGCCACCT CTGGCTCCA
125151 TCAAGATCCA GTTCCCCATC TCACTGTTT CTCTGAGTTC TTGGGAGGAG
125201 TGATGGTGTT GGGGTAGAAA TAAGCTCACT CACCCACGCA GGGTACTAAA
125251 GATCTTACAG GAGCTTCAAC TGGAGCAGGA GGAGCTTTTT ATGCTTATGT
125301 TGAATCAAGT CAGATACAAA AAGCAATTGT CCTCTTTGC CCAAGCCTTT
125351 CCAATTCTGT GTGTCTTGT GTGTCACTGT CCACTTGTGT ATCCTTCTGC
125401 AGGAAGACCC GCCAAATAGA AGAGATGGGA CAAAAATAGG AATGGTGTGT
125451 GACGACAAAG GGCTACTGGA AGAACAAAAG GGATACAGGC CTCTTGATT
125501 ATCTTTGGCT TTGTACCTGA GGCAGGAGAG AAGAGATGTC CAACCAGTGA
125551 GATCTTTAAG AGAAAAGTTT GTATTTTAAA TGTCAATGTG CCTGAGAAAT
125601 GTCAGCTTCA CCACGCTCTT GCTTCTAAT GCTCTATACA AAGAGGGCTG
125651 ACTATATTTT TTGAAGTGGT GTAAAACTT AGAGATTTTA TAAGAGAACC
125701 AGGGGTCCC TTCACCTCTC CTGGTCCCTC AGGTCACATA TGAAAGCATT
125751 TTTACAAGAT AGGAACTGGA ATTCCTCAT TCTCCCATGT TCCTGCTGT
125801 TCTTAACTT CATGAAGCTA TTTTCCAGC CTATGGGGTA GTCTTGCTC
125851 CAGTAAGAGG AATCTTAGTT GTCATAATCC CTTGGAGCCT GGGTTTTTGG
125901 AGAAAGAGAT CTCCGTGCCC TACAGACCTT TTCTCAACGA ATGTGGGAAG
125951 GACCTGGCTT TAAACACGC ACACAAACAC ACAAATAAAC AGACATAAGA
126001 TGTCATCAGC AAATGCCCCA CGGATCTTTA GGCTTTCTGC ATTGACATAA
126051 ATACATTTTC TAAGGGGGGG GGGGAAGAAA TTAATAAACA CCTGTTAATT
126101 TTAACACAT TTTTAAAGAA AAAATAAAT AAAAAAGAAA CAGTGCTCAT
126151 GTCATAAGCT ATGTTGACAG TTGCCAGTGG AAATGTTGGG TTGGTTCAAA
126201 AAAAAAATAA AAGCTATACT ATATCTCTCT ACATACAGCT TGCTTCTACC
126251 TGTGTTCTTT CAGTGAAAGG TCCAGGGGGC CACTGTGGGC TTCTGTGAG
126301 GAGACGTGAC TCAGGTGAAG GTGTACCTC CTCTCACACT CAGGTGCCAA
126351 TGTGTCAGAC CCAGTATATT CTAAGCAAAA ATACTTCAGG AAAATGCCAC
126401 TTGTCAAAAC CTGGACTTTG CGAAGTTGGA AGATGTAAGT AGTAGTAAAA
126451 GCTGTGGTAA TTATGGAGGA AGGAGGTTTC TGTATCAGAA AGGCATTGGC
126501 CGTGACAGAC TC
(SEQ ID NO:3)

FEATURES:

Start: 2010
Exon: 2010-3793
Intron: 3794-109509
Exon: 109510-109613
Intron: 109614-118338
Exon: 118339-118463
Intron: 118464-119345
Exon: 119346-119445
Intron: 119446-121409
Exon: 121410-121685
Intron: 121686-124128
Exon: 124129-124502

FIGURE 3LL



Docket No.: CL000891

Serial No.: 09/804,474

Inventors: MERKULOV, Gennady V.

Title: ISOLATED HUMAN TRANSPORTER...

Stop: 124503

SNPs:

DNA Position	Major	Minor	Domain	Protein Position	Major	Minor
378	C	T	Beyond ORF(5')			
742	T	-	Beyond ORF(5')			
2005	C	T	Beyond ORF(5')			
2381	A	C	Exon	124	T	T
5165	C	T	Intron			
5402	A	G	Intron			
6794	T	C	Intron			
9883	A	G	Intron			
10210	T	C	Intron			
12220	T	G	Intron			
13842	G	A	Intron			
14200	C	A	Intron			
15878	G	T	Intron			
16030	A	G	Intron			
16292	T	C	Intron			
16506	T	G	Intron			
17953	C	A	Intron			
23832	C	G	Intron			
25001	C	A	Intron			
25141	A	G	Intron			
25191	A	G	Intron			
26147	-	A G	Intron			
27400	A	G	Intron			
27401	A	T	Intron			
29278	C	T	Intron			
31437	A	G	Intron			
31857	A	G	Intron			
33155	G	A	Intron			
39487	G	C	Intron			
41449	T	C	Intron			
42420	T	C	Intron			
43256	G	C	Intron			
43967	T	C	Intron			
48604	-	A	Intron			
49560	A	T	Intron			
52729	G	T	Intron			
55031	A	G	Intron			
55066	A	C	Intron			
56912	A	G	Intron			
58480	C	T	Intron			
61128	G	A	Intron			
61320	G	A	Intron			
61444	A	C	Intron			
62641	T	C	Intron			
63023	A	G	Intron			
63051	T	C	Intron			
64989	T	G	Intron			
65929	C	A	Intron			
66694	C	G	Intron			
66755	T	A	Intron			
66879	T	C	Intron			
69156	C	T	Intron			
69280	C	T	Intron			
70647	C	T	Intron			
71867	C	T	Intron			
71900	C	T	Intron			
71901	G	A	Intron			
72369	C	T	Intron			
72992	T	G	Intron			

FIGURE 3MM

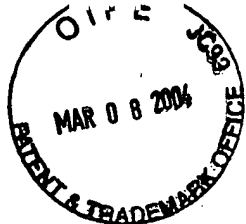


IPF

Docket No.: CL000891
Serial No.: 09/804,474
Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

73154	-	T	Intron
73164	-	T	Intron
74149	T	A	Intron
74171	G	A	Intron
74918	A	G	Intron
75386	G	A	Intron
77751	G	A	Intron
78264	G	T	Intron
80986	T	A	Intron
83609	C	T	Intron
85271	G	T	Intron
87770	C	T	Intron
87837	T	C	Intron
87866	C	T	Intron
88238	A	C	Intron
89219	A	G	Intron
89331	T	C	Intron
90794	A	G	Intron
92404	C	T	Intron
92672	A	C	Intron
92684	A	G	Intron
93132	G	C	Intron
93537	A	T	Intron
93557	T	C	Intron
95067	C	T	Intron
96000	T	C	Intron
96877	G	T	Intron
97271	A	C	Intron
97470	G	T	Intron
97518	G	A	Intron
98476	C	T	Intron
98779	C	T	Intron
99218	C	G	Intron
100538	C	A	Intron
101045	A	C	Intron
101232	C	G	Intron
101266	G	A	Intron
101290	A	G	Intron
101326	G	A	Intron
102342	C	A	Intron
104489	C	T	Intron
105266	A	G	Intron
105338	T	C	Intron
105570	C	A	Intron
105928	G	A	Intron
106459	G	C	Intron
107710	C	G	Intron
108062	G	A	Intron
108214	G	A	Intron
108364	C	A	Intron
108657	T	A	Intron
109746	C	T	Intron
111484	G	T	Intron
112879	A	G	Intron
113245	C	T	Intron
113265	T	C	Intron
113497	C	G	Intron
114486	G	T	Intron
114686	T	C	Intron
114817	C	A	Intron
115600	G	T	Intron
115668	A	C	Intron
115745	A	G	Intron
117230	A	C	Intron
118908	A	G	Intron
120430	C	A	Intron
120830	A	T	Intron

FIGURE 3NN



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Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

121926	T	C	Intron
122102	G	C	Intron
122950	T	C	Intron
123366	C	T	Intron
124947	C	T	Beyond ORF (3')
125010	A	G	Beyond ORF (3')
126043	T	C	Beyond ORF (3')
126064	-	G	Beyond ORF (3')
126283	C	G	Beyond ORF (3')

Context:

DNA
Position

378 TGGCATGTACAAAGGTCCTGGGGTGGACAGTCACCTGGGTATAATCCAAGAGTGAACCTGA
AGGCTATGTTGTTGAAATGTAATAAGGGAGAGAGTGACGGGATGAAGGGGGATGAGTGG
GAAGCAGTGAATTCCTGCAAGGCTTTGAAGGTCATGGGAAAGAATTTGGTCTTTATATCA
AGAGCAAGAGAAGACTACTAAAGGGCTTCAAACAGGGGAGCGATATGCTTAAGTCTGTTT
GTTTGTGTTTTTAAAAAAGATTACGGTGGCTATATGAGGAAAGTGGAATTGAGAACTAG
[C, T]
GAGAGTTGGAGTGGTGAGCTCCATTAGGAGGCTACTGAAGTAGATTTCATGAGGTAAGGAG
TGATGGTGGCCTGGGCTGGGATGATGGTGGTAGAAATGGAGAAAGAGTTGATAGGATTTA
GTGATTGGATAAGGGACAGAAGAGAGATGAAGGCTTTCAGACTAACATCTGCTTTCTAAC
ATGAGTAAGTGGTGGCTGAAGATGCTATTTTCTGAGCTGGGAAACAGGAGAAAAAGGAG
CAAATATGGGGATGAAGACTTTGAGTCTTTAAGGTGCTGTACAAACAAATCAGCATT

742 TGGTGGCCTGGGCTGGGATGATGGTGGTAGAAATGGAGAAAGAGTTGATAGGATTTAGTG
ATTGGATAAGGGACAGAAGAGAGATGAAGGCTTTCAGACTAACATCTGCTTTCTAACATG
AGTAAGTGGTGGCTGAAGATGCTATTTTCTGAGCTGGGAAACAGGAGAAAAAGGAGCAA
ATATGGGGATGAAGACTTTGAGTCTTTAAGGTGCTGTACAAACACAAATCAGCATTCTT
TTATTACTAAGGGTATCCACACAGTTGTAGCAGAGGGAGAAAGATCGCCCCCCCCCAC
[T, -]
TTTTTTTTTTTTTAGCTATTCCATGGTATTTTCATTCTCATCCACCCAAATGAGGCAG
TGAGTGGTAAGATGAGTATATAATAGTTTCAATGTCATTTCATCCCATCTCTCTGAGCTC
AAGCTCACCTTTTAGTGGTTTGGAGCCAGTAGATGAAGCTGCATATCACCCCCAAATCT
TGTCTCTAGTTTAAACAACTTATTTGAGAGACATTTGCATGTTTTATTAATAATGATT
TTACCACCTGTTCCTTTCCATGTTTGGGTTGAAATTTGAGTGGCTGGCGGATGATCATC

2005 TTTCCATCCCCAGTATTCCCAGCTATTTCAAGCCATTTTCAACGGAGTCTCCACCAGAT
GGTTTGGAGGACAGAGCAGCTATTTGTGCCCTCCCATGACATCTATTTTCCAAGTGAGA
GACTGCCCCATATGTTAGTGCAATATGTCACCTGGAGGTGAAGCATCAGTTGTATTTGGTGG
GAACCTGCCGTTTGTCTGCCCTTTTTCCTCATGCCTTTTCTGCCTCTCTGATCTTTTC
TAGGTCTCTGGCCTATCAGGAGGACAACCTGGTGTGCAATAGAAGCCAGTGGCTAAGTCT
[C, T]
GTGTATGGCGTGGTTAAGGTTGCAGCCTCTCACCTCTGCCTTCTCCATTTTGGGCTGGT
TACCTTTGTGCTTCTCTGAATGGTCTTCGAGCAGAGGCTGGTGGCTCAGGGGACGTGCC
AAGCACAGGGCAGAACAATGAGTCTCTGTTCAAGGTCATCGGACTGCAAGGAGGGTGTCT
CCTGCCAATCTGGTACCCGAGAACCCTTCCCTTGGGGACAAGATTGCCAGGGTCATTGT
CTATTTTGTGGCCTGATATACATGTTTCTTGGGTTGCCATCATTGCTGACCGCTTCAT

2381 CCTGAATGGTCTTCGAGCAGAGGCTGGTGGCTCAGGGGACGTGCCAAGCACAGGGCAGAA
CAATGAGTCTCTTTCAGGGTCATCGGACTGCAAGGAGGGTGTCTCCTGCCAATCTGGTA
CCCGGAGAACCTTCCCTTGGGGACAAGATTGCCAGGGTCATTGTCTATTTTGTGGCCCT
GATATACATGTTCTTGGGGTGTCCATCATTGCTGACCGCTTCATGGCATCTATTGAAGT
CATCACCTCTCAAGAGAGGGAGGTGACAATTAAGAAACCAATGGAGAAACAGCACAAAC
[A, C]
ACTATTGGGCTCTGGAATGAACTGTCTCCAACCTGACCTTATGGCCCTGGGTTCTCTCT
GCTCCTGAGATACTCTCTCTTTAATTGAGGTGTGTGGTCATGGGTTCTATTGCTGGTGT
CTGGGACCTTCTACCATTGTAGGGAGTGCAGCCTTCAACATGTTTCATCATCTATTGGCATC
TGTGCTACGTGATCCCAGACGAGAGACTCGCAAGATCAAGCATCTACGAGTCTTCTTTC
ATCACCGCTGCTTGGAGTATCTTTGCCCTACATCTGGCTATATGATTCTGGCAGTCTTC

5165 TTCTCTGAATGACTGAACATATCCACAAATAATAAGCGTGGCAGGAGATGGTGTGAAGA
GTAAAAGGAGCATATAGGAAGTTGTGTGTGTGGGGTGTCTGTTTCAAGAACCTGCTAATT
ATACCTTCAGTAAGAAATGAAGCCATACAACCTCTAGAAGAGGAGGAGGAAGGAACCTCAT

FIGURE 300



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5402

GGAAAAAGTGGGGAGCCATAGAAAGCTAGGGAGAGGTGTCTAGGAGTGCTTCTGCCAGGT
CCAGCCATGAGACAGAGCTCAAAAAGAGCTGGGCACCTGCTGGTGACAGAACTGAGTGACC
[C, T]
GGGGGATCCTGCATCTGTTCTTACTCAATCCCTTCTTAATAATGTGACTTGGGGCAGGTC
ATTTATTGGTTCTGGAACCTAAGTTCTGATATGCAAACTGGGAATAACAATACTTTCTCT
TGCCCTGGAGGCAAGGTGAGTCTTTTTCAGTTCCTTCCAGCTCTAAGATTTTCTGAACC
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TTGTCTCCTGAAGGGAAATGGCCATTGACAAATGATTATTAGAGCTCTGTTTAGTCAT

6794

GGTCCAGCCATGAGACAGAGCTCAAAAAGAGCTGGGCACCTGCTGGTGACAGAACTGAGTG
ACCCGGGGGATCCTGCATCTGTTCTTACTCAATCCCTTCTTAATAATGTGACTTGGGGCA
GGTCATTTATTGGTTCTGGAACCTAAGTTCTGATATGCAAACTGGGAATAACAATACTT
TCCTTGCCCTGGAGGCAAGGTGAGTCTTTTTCAGTTCCTTCCAGCTCTAAGATTTTCTG
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[A, G]
ATATTGTCTCCTGAAGGGAAATGGCCATTGACAAATGATTTATTAGAGCTCTGTTTAGT
CATTTTGTCTGGGAAGGATAATCATTTGTTAACGTAAGTAGAAACCTGTGCCTTCTGGAGA
ATACTATCCATTATATGTACTCTGGGAGAGTGTATTATACATACAAATGAAGGACAGGG
CTTCACTGGGAAAAACAACTCCATGGAATTTACATGATTATCGCGATGTGAGTGTGGAA
GAAGATATGGTAAGGCATTAAATGACATTAAGACCACAAAATTTGCCATAAATTTGACGGA

9883

CTCATAAAATATTAGAGCTAGAAAGGACCTTAGAATATCTTCTGCAGTCATGGTTCTTAA
ATTTTAATGTGTTGCTCAATCATCCAGGGATCTCACTGAAGGGCAGATTAGGATCCAGGA
GGTCTAGGGGAGGGATGAGATTCCCGCATTTCTAACAAAGTTCTGGATGCTGCGGGCCCA
ACTTAGAGGTGAAAGGTTCTGAAGCTCTTGACCAAAACCAGGAGACCAGCAAGAAGTGG
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[T, C]
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TATAGCTTTATTGCTTACCAAGCCTGGTAGTATTGAAATCTGCCCTCACTATACTCC
CTAAATATAATCAAGTTGAGGCCAGGCCTGTGCTCTATCAATAATATAGGATCCACGAAT
TCACATGTTTGGTTTTATGCTTTACTTCTTCAAAGGTGCTTTTAGCAGCATGGAAGAATG

10210

GTCAAAGAATATGTCAAAGCATGACATATTCCAACCTCCAGGATCCATAAAACACCCCAAG
TTCTGTGGAGACCCTATCACATCTGCAAACTCTCCAGGAAGTCCAGAGCCCTCCTGGTT
AATTTGTTTTAGGGACTAGGCATGCGGTATCCCTGACAACACTGGATCAGCAATTCTCC
TACCTAAGTCAGTCCACACCATGTGCGAGCAGAGTATCCAGTGCCCTGCCCCTGGTCTGC
TCACATTGGTTTGTCTCCAGAATAAATTCCTCAATATCCACAAGAGATTGATTCCAG
[A, G]
ACTACTCCGAGGATACCAAAATCCTCAGATGCTCAAGTACCTGGTATAAAATGGCACAG
TATTTGGCATATGACCTAGGCATATTCTCTCCCATATACTTTATTTATTTATTTATTTG
GGACAGAACTCATTTCTGTGCGCCAGGCTGTCACTCGCTTATTGCAACCTCTGCCTCCCA
GGTTCAAGCAATTCTCTGCCTCAGCCTCCTAAGTAGCTGGGACTACAGACGCATGTAC
CACGCCCTGGCTACTTTTTGTATTTTAGTAGAGACAGAGTTTACCATGTTGGCCAGGCT

12220

CAGATGCTCAAGTACCTGGTATAAAATGGCACAGTATTGGCATATGACCTAGGCATATT
CTCTCCCATATACTTTATTTATTTATTTATTTTCGGGACAGAATCTCATTCTGTGCGCCAG
GCTGTCACTCGCTTATTGCAACCTCTGCCTCCAGGTTCAAGCAATTCCTGCTCAGC
CTCCTAAGTAGCTGGGACTACAGACGCATGTCAACACGCTGGCTACTTTTGTATTTT
AGTAGAGACAGAGTTTACCATGTTGGCCAGGCTGGTCTCAACACCTGACCTCAAGTGA
[T, C]
CCGCCCCACCTTGGCCTCCAAAAAGCTGGGATTACAGGCGTGAGCTACCACGTCAGCCC
CCCATATACTTTAAATCATCTCTAGATTACTTATAATACCTAATACAATGTAATGTTAT
ATAGTTGTTTTAATGTATTGCTTTTTTTATTTGTATTGTTTTTATTGCTGTATTATCCT
TTTTTATGTTTTATTTTTCAAATATTTTCTACCCGTGGCACCCACAGTTGGTTGGTGA
ACCTGCGGTTGGTGGAGCCCATGGATGTGAAGGCTGATAGTATGAGAAAACCTCAGAGGT

ACATCCAAATAGTAACCTTAATATTCAAATATGGCTGCAAAACAAATGTGCGATTATGGA
TGACTACTACTGCCATCTCTCCATACCAAGTCCATCTTCTGCCAGGCTGTTGGTCTTGAT
TTGTGACCTTTTAGGTTTCTCCCATGTATTCCACATGACCTTCACCAACCCCACTTCT
ATCTCCAAACGTCTTTCTGAGTTGTGGGGATGCAGATGTATTCTGCCACCATCACAAGG
CTAACGAGCCCTGGCTGCGGATCTTCATTGTTGTTTACATTATTTCCATTCTTACACCC
[T, G]
ACTTCATGTTTGTACACTATTTTCTTACATTGCTGTCTCTTCTAAACATTCTTGTGTC
ATCCACTTTTTCTTATTGTTGCTCTAGGTGCTGCAGAGGCTAATGCTGGGTTTCTTCT
ATTCCTCCTTGCACTCAGCACCTCCCTTCTCAATTCCTTTGCCATGTCTCCACTTTAAA
TCTTAACCTACTCCAGATAGTCTTTTCTTCACTATTGGCATCTGTGCTTGGGTTGCT

FIGURE 3PP



Docket No.: CL000891
Serial No.: 09/804,474
Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

- TTTCAGTCTATTCTCTGATCTATGATTTCTTTGCATGATCAAGAAGGTGCCATGAAAGGAT
- 13842 TCACCTTTCAAAGCCTCTTTCTGGGTTTGGATTTCCAGAGCAGCCTGTGCTGTAAAGCAAG
ACAGAAAGCTTCCCTGCCATTTCATGCCCTGCCAGGGATAGAATGACAGTACTCCTGAGGCT
CTCCCTCCCCACCCCTCCCTGCTGGACAGCTGATCTGCTGGACTCAGCCAGAGCCAGCA
GGCACCCCTCTTTATCCTAGGAGCTGCAAACTTGATGCCTTTCCAGGAAATCCCAGAA
GCTGGAGTATCCTCATCTACATGTGGCACAGTGTATGGTTGTGTCAGGTGCTCATGTCCC
[G, A]
TTGCATAGGACTGGGGTGGAAAATAGGGACCGTCTTTTGTGTCAGCTCCAGTCAATGAG
TAGTGCCATCCAGGGGGCCATCTTGGAAGGACTTGTGAGGCTGTATCTGCGCTCAGTT
GTAGATGTGAGAAGAAAAGGCCAAATATCTGCCAATCCTAGTCTGGGATTCAAGATAGA
AAGAAGTGCATGGAGTGAAGAACTAGGAGTCTCCATTTCAGTGCATAGATAAGAATGA
AATTATTGTCACTATTCTTCAATACTGGGCCAATCCTAATAAGAAAACCTTTTGTAGT
- 14200 GAGTAGTGCCATCCAGGGGGCCATCTTGGAAGGACTTGTGAGGCTGTATCTGCGCTCA
GTTGTAGATGTGAGAAGAAAAGGCCAAATATCTGCCAATCCTAGTCTGGGATTCAAGAT
AGAAAGAACTGCATGGAGTGAAGAACTAGGAGTCTCCATTTCAGTGCATAGATAAGAA
CAATAATTATTTCTACTATTTCTCAATACTGGGCCAATCCTAATAAGAAAACCTTTTGT
AGTCTCTCTTTCTTTATCCTACATATAACACAGAAGCTTTTCTATTCCCTGGATGAAC
[C, A]
CACAGGGACAGAAATTTCTGTTGGACAGGTGAAGCAGATAATTTCTTTATCAGACTAGAA
TCTTCCAGAAGCACTGCTAACCTAGTGTAGTTTGTACTCTAGACAGGTGGTTCTCAAGCC
AGCTCCCCACCGCAGGCCCTTTTTCATGGTCTGCCCCCTCCCTGTGGAACCCATGTTT
TAGG
TTATTAGCTGATTAATTGATTTCTATTTTCTCATAAAATACAGCAAAAGATAGCTAGT
GATATTATGATGAGTTAATGTAATTATAGCCAAAGCAGAGAGAAAACACATTTTAATTAA
- 15878 TGTGTCAAAATATCACTCTGTATCCATACATATGTATAATTATTATGTGTCAACTAAAAA
TAAAAGGAAAAAATCATTTTCAGTGTATTACAAAACATATGTAACCATTAAGAATAATG
TTTTAAATTATATCTAAGGGTGTGATAAAATTACAGTATAAGATTGTGCTTGAAAAAGTG
CAATAAGAAAGTAAATATGTACAGATGAGAAAAAGTGCAAGAACTAAGTCCCTAAGCAGAC
TATACCTTTCTACTGCATGGTACTTCTCTGGCCTTTTGTCTTGAAAGATTTTGCACCCA
[G, T]
CATGGCAAGTGGTTAGCAGAGGCAGCCATTCTCACTTGTGCGTTGGCTTTGGGAGCCATA
TATGTTGTTTCAGTGGGTGTGGAGTGGAAGGCTGCATGTTGTATTAAATGCATTGTTAAG
AACCTCTAAGAGTGATTCTTTTGGGAAGTGAGACTGACGGTCCGAATGGTGGAAAGACA
ACTTTTAACTTTTACTTTACACTTTGTGCATTTTAAATGTTTAAATGAGCATGCATT
TCTTTAATAATAAAAAATACAAAAAATTTAGCCCTAGATCTTCTGATTTTAACTGCAT
- 16030 ACAGTATAAGATTGTGCTTGAAAAAGTGCAATAAGAAGTAAATATGTACAGATGAGAAAA
AGTGCAAGAAGTAAAGTCTAAGCAGACTATACCTTTCTACTGCATGGTACTTCTCTGG
CCTTTTGTCTTTGAAAGATTTTGCACCCAGCATGGCAAGTGGTTAGCAGAGGCAGCCATT
TCACTTGTGCGCTTGGCTTTGGGAGCCATATATGTGTTTGTGCTGGGTGTGGAGTGGAAG
GCTGCATGTTGTATTAAATGCATTGTTAAGAACCTCTAAGAGTGATTCTTTTGGGAAGTG
[A, G]
GACTGACGGTCCGAATGGTGGAAAGACAACCTTTTAATCTTTTACTTTTACACTTTGTGCAC
TTTTAAATGTTTAAATGAGCATGCATTCTTTAATAATAAAAAATACAAAAAATTTTAG
CCCTAGATCTTCTGATTTTAACTGCATATCTTCTATTTGTGTTACATATTTTAGCATG
AGAATAAGGTTATGAAGCTGGAAGTAGCAGGCTCCCTTTTCTCATATGTAGGAAGTTAA
GAATGCATTCTACGTTTCTTCTTAAAGGAGTTGGCTTCTTTCCTTTAACATAGGGGTAA
- 16292 TGTTAAGAACCTCTAAGAGTGATTCTTTTGGGAAGTGAGACTGACGGTCCGAATGGTGG
AAAGACAACCTTTTAACTTTTACTTTTACACTTTGTGCACTTTTAAATGTTTAAATGAGC
ATGCATTTCTTTAATAATAAAAAATACAAAAAATTTAGCCCTAGATCTTCTGATTTTAA
ACTGCATATTTCTTATTTGTGTTACATATTTAGCATGAGAATAAGGTTATGAAGCTGG
AAGTAGCAGGCTCCCTTTTCTCATATGTAGGAAGTTAAGAATGCATTCTACGTTTCTTC
[T, C]
TTAAGGAGTTGGCTTCTTTCTTTTAAACATAGGGGTAAGTGGGCCCAGGGAGTTTGGCAA
GGGCCAAATAAAGTCTTAAATGCCAGCTCAGAAATCTGGATTACCATCCTTGACTGCT
GGCTCCAACCCACCTCAGCTGAGTGGTCTGCAGAGGATTCTTGTTTGTGCTCACTTCT
CACCAGCAACTACCGACAGATGATGCTTTGGCCTGCTGCCTGGTAACAGGGCGAGGCTG
GCTCAGGACCATGTTTTCAGATCAGGGGACCTCCTTTGATGCCATGTCCATGGTGTCCGA
- 16506 GCATGAGAATAAGGTTATGAAGCTGGAAGTAGCAGGCTCCCTTTTCTCATATGTAGGAA
GTTAAGAATGCATTCTACGTTTCTTCTTTAAGGAGTTGGCTTCTTTCTTTTAAATAGG
GGTAACTGGGCCCAGGGAGTTTGGAAGGGCCAAATAAAGTCTTAAATGCCAGCTCAGA
AATCTGGATTACCATCCTTGACTGCTGGCTCCAACCCACCCTCACCTGAGCTGGTCTGC
AGAGGATTCTTGTGTTGTGTCATTTCATCACCAGCAACTACCGACAGATGATGCTTTGGCC

FIGURE 3QQ



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- [T, G]
GCTGCCCTGGGTAAACAGGGCGAGGCTGGCTCAGGACCATGTTTTTCAGATCAGGGGACCTCC
TTTGATGCCATGTCCATGGTGTCCGAGGGCAGCCAGGATCAAGGGCTAGACGGGGCAGTG
ATGAGATGAGAGCAGGAGGGGCTCAGCTGCAGCCCCAGGAGAGCCTATGCCAGCCCTGTT
GACCAAGGAGGACAGAAGCAACAGGAGAGCGGAGGCAGAGGGGTGAGTGTCTATCGCTCA
ATGTATAATCGGCAGACATTTGGGGAGCTCATACTGTGGGCTAAGCACAGGGAAGAAAGG
- 17953
GATTGGACGCAGTTCTGCACAGCACTTTTCCGAATGCCTCTGAAATGAGTCCTCACTGAC
AGAACGGGCCCCACTCTGGGGAACTGAGGGCTCTCTTGGTCTGCACTGCTCTTTGCCAT
ACAGATCTGTCTGCCAGGATTTTCTTGGGTGTGTAGGAGGCTGAGAGAGCTCCCTTT
CTTCTCATGGCTAAATCCCTTGGTCTTTCCAGCCCTCCTGGGGTTAGAAGGGAGAGGGA
AAAAAAAAGACTGAACCTGT
[C, A]
TATGTTGTCTTGTGGGGAGAGGGTATAAGATTGATTGACAGAGTGGCACACTTCCCTGC
AAATTCATCATTTGAATTTCTCAGGTAAGATGTTTACATTTCTCTGTTAAGATGCTCCAA
TTTCTCTGGTTAAGATTTCTCTGGTAAGATGCTCATGAATTGGTGGAGGTGTTGGCGGGA
TGTGGGAAGTGTGCTGCTCTTTCTGAGTTTGGGGGAAGTTGCCTTAATTCCTGCTGATG
ACTTTCCTTGTCTCTTTGGGCTTCATTTCTGTGCAATGTAGTCTGACATGAATACTGCTC
- 23832
TAGGCAACAGCATTATAACTCCTGCCTTCACAAAGCTTATCTAACACACACATTTCCCTCC
TCAGGCACATCCCAGCCTTCTTGCACTTAGGATTCAGCAGTATGCTTAAGGGCCATTTTC
AACAGCAAACTCATCAGCGCAAAACACAAACATGTGAAAAACGTAGCACTAAAGAGACTGC
AAAAAGGACACTGGCTTACAGCATGGAAGCTGGAAGGAGAAGGCAGAGAATCACCTTGT
CCACTTCAGCTATGAATATGCAGTCAGGCCACCCAGTCATTCAAATTTATAAATATACT
[C, G]
TAATATATATATAAATACCAGGCAGGGTTATTTTTTCTCAAGTCATTTTCTAATTTT
TTTTAAATGAATAGATAGAAGAGCTGAAGTAAGGGTCAGGAGCAAGAGCTCTGCTTCCCT
TTCCCTTGTCTGGGCTTCGTTAGAGAGCCATCATCTCCTCAATATGTCTCCCACTCTTCT
AGGCATTTGGATGAGTTTGTCTGCAGATACGAAACCAACTTTGCCAGTCACTTCATACTAA
CAGGTGAAATGTAGTGGAGGAGCCTTTTGAAGCAGGGACTCAGCCCCCATTAGCCTCA
- 25001
GGGCAGATGAGTTTATACGTTTCTTTCATGTCCCTTCCCTCCACATAGACTTTTATTTCC
CCCAAAGGAAAACAGAAAACATGATCTGTTTGACAGTGTGTGCTATCATTTGGGCATCAAA
CCATCATCTAAGGGGAATCCCCCTGTATAATCAGTCAGCCAAATGGAGCAGGACCCCTGT
GTTTTGTAGCTGATACAACAGGGCAGCATCTCTAGTGAGGGGGCCAGGGCTTCTATTTCC
TTCAATTAATAAATGAAACAGCAGACCTGATTCCATATTTAGAGATTACACTTAGTTGCCA
[C, A]
TGTGGGTGTGCAGGCACCAACCAACCCAGTTGGCACCCTGTCTTTTCTCTGCAATGAT
GTATTGAATTTAATAATGGAGGTATATGAAATTCAGAGTGATTGGAACCTGAAGGTTTAGG
GGCTTTGTGTAATAATTGATATGTAAGGGATTGGAAGTAGGTGAGGGATTCTTCCCAAT
ACTTATTCAATTTTGGAGTCAAATAACCAAGCATTTACAAATAGCCAAAAAGAAATTGA
AAGAGGGTTAATCCAATAAATTTTCATGCCTCATATGAACCACATCTTATAATAAGAAT
- 25141
CCCCGTGTATAATCAGTCAGCCAAATGGAGCAGGACCCGTGTGTTTTGTAGCTGATACAACA
GGGCAGCATCTCTAGTGAGGGGGCCAGGGCTTCTATTTCCCTTCATTAATAAATGAAACAG
CAGACCTGATTCCATATTAGAGATTACACTTAGTTGCCACTGTGGGTGTGCAGGCACCA
ACCAAAACCAGTTGGCACCCTGTCTTTTCTCTGCAATGATGATTGAATTTAATAATGG
AGGTATATGAAATTCAGAGTGATTGGAACCTGAAGGTTTAGGGGCTTTGTGTAATAATTGAT
[A, G]
TGTAAGGGATTGGAAGTAGGTGAGGGATTCTTCCCAATACTTATTCAATTTTGGAGTC
AAATAACCAAGCATTTACAAATAGCCAAAAAGAAATTGAAAGAGGGTTAATCCAATAA
ATTTTCATGCCTCATATGAACCACATCTTATAATAAGAATTATGCTTTTTCATTTCATAC
TCAGTTAACAAATATGATTTGTGAGCACCTGGTAAGTTCAGGGCACTAGGCTGAAAGGGG
TTACCAAAATGCTTCATTTAACAAGTCCAGCTGAGCTCTTACAGGTACCAGAACTGTGC
- 25191
TGATACAACAGGGCAGCATCTCTAGTGAGGGGGCCAGGGCTTCTATTTCTTCATTAAAA
AATGAAACAGCAGACCTGATTCCATATTAGAGATTACACTTAGTTGCCACTGTGGGTGT
GCAGGCACCAACCAACCCAGTTGGCACCCTGTCTTTTCTCTGCAATGATGATTGAAT
TTAATAATGGAGGTATATGAAATTCAGAGTGATTGGAACCTGAAGGTTTAGGGGCTTTGTG
TAAATTTGATATGTAAGGGATTGGAAGTAGGTGAGGGATTCTTCCCAATACTTATTCA
[A, G]
TTTTGGAGTCAAATAACCAAGCATTTACAAATAGCCAAAAAGAAATTGAAAGAGGGTTT
AATCCAATAAATTTTCATGCCTCATATGAACCACATCTTATAATAAGAATTATGCTTTT
CATTTCTACTCAGTTAACAAATATGATTTGTGAGCACCTGGTAAGTTCAGGGCACTAGG
CTGAAAGGGGTTACCAAAATGCTTCATTTAACAAGTCCAGCTGAGCTCTTACAGGTACC
AGAAGTGTGCTGGGCTGTCATATGAAGATGAATGAAGAGTGTGTGAGGCCTTCAAGAG

FIGURE 3RR



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- 26147 GCATGATCTCTGCTCATTGCAACCTCTGCCTCCAGGTTCAAGCGATTCTCCTGCCTCGGC
CTCCTGAGTAGCTGGGATTACAGGCGTGTGCCACCATACCCAGCTGATTTTGTATTCT
AGTAGAGATGGGGTTTGGCCCTGTTGGCCAAGCTGGTCTCAAACCTCCTGACCTCAAGTGA
TCTACTCGCCTTGGCCTTCCAAAGTGCTGGGATTACAGGCATGAGCACTGTGCCTGGCCT
TTTTTTTTTTTTTTTTTAAAAAAAAAAAAAAAAAACAGGAAGTTTCGTTAGTTTTTTTT
[-, A, G]
TTTGTTTTACTTCCCATAAAACTCTTTGTGTACATGGAGGTGAATGGAAAGAGAGGCT
GTGGCAACAGACGGGAGACTTTTCTGATATCAGAACCCAGTCCCATAGACCAGAATGTAT
GCTTTCAATCCACGTTGTCTGGGTCCATCCTATTGAGTGCCCTGCCCCCAGCGGGGTA
TGGAGAAGAGTCAGACACAGCCCCAGTCTCACGTAGCTCACAAATCCAGTGGAGGAGACG
GACTCAGAAACAGATAGAGATGAAGCCATGAGATCAGTACTGTCCGAGGCCATGGCCACG
- 27400 TAAACTTTACAAATCCTTAATTTGTAAAATGTGGGCAATGATAGTACCTCCTCACAGGAT
TATTACAGGTTTACACGGAATACTCTCAGCTCATAATAAGCACTTGACAGGCCTCATG
GGCTAGGCCCTCAAACCTTAACGCATCTACAGGCAACAGCCATATGAAAGGAATTTTATA
CCACCAAGTCAAAAAATCTGTGAGCACTGCTCAGAAGCAAAAGCCTGTCTCCAACAGCGC
TCATTTAAGGGGTGGGCGAGCTACAGAGAGAAGAATGAGCCCCCAGGGTAAGCTGGGG
[A, G]
AAGCTGGGGACAGAATGAGACTCAGGAAATCACTTGAATATTGATTATATTTGTGCTCAA
TAATAAAATAACGAAATGAGTACAGCCCTAGACCTAAACATTGTGGGTGAGGCAAGGCA
ATGCGTTAATTTTGCATCCACTGAGGAAAACTCTAAAACGGTGACTTCTTTTAAAGGG
ACCAGAAGAATCTAGATTATATTTAGTCTAAGTCAATACATACGACAGAACCTTGCCCTC
TAGACTTGATAAGAAAGAAGTAAATAAGAGAAAGAATAAAAAACCTTCCACCAAAATA
- 27401 AAACCTTTACAAATCCTTAATTTGTAAAATGTGGGCAATGATAGTACCTCCTCACAGGATT
ATTACGAGGTTTACACGGAATACTCTCAGCTCATAATAAGCACTTGACAGGCCTCATGG
GCTAGGCCCTCAAACCTTAACGCATCTACAGGCAACAGCCATATGAAAGGAATTTTATAC
CACCAAGTCAAAAAATCTGTGAGCACTGCTCAGAAGCAAAAGCCTGTCTCCAACAGCGCT
CATTTAAGGGGTGGGCGAGCTACAGAGAGAAGAATGAGCCCCCAGGGTAAGCTGGGGA
[A, T]
AGCTGGGGACAGAATGAGACTCAGGAAATCACTTGAATATTGATTATATTTGTGCTCAAT
AATAAAATAACGAAATGAGTACAGCCCTAGACCTAAACATTGTGGGTGAGGCAAGGCAA
TGCGTTAATTTTGCATCCACTGAGGAAAACTCTAAAACGGTGACTTCTTTTAAAGGGA
CCAGAAGAATCTAGATTATATTTAGTCTAAGTCAATACATACGACAGAACCTTGCCCTCT
AGACTTGATAAGAAAGAAGTAAATAAGAGAAAGAATAAAAAACCTTCCACCAAAATAC
- 29278 ATACACTTCAGCAAGTCACCTAACCTGCAAATTTCAAGCATGTGAATCTTGGATCTTTCA
TGTGCTAGCTGTGAGACTTTGAGAAATGTATTTAATGTCTCTTTGCTTCTTTCTACCC
ACACAAATGGGTATAATAATGTCTACCATATATCTTTGACAGCAAGGTCTAAATGGGGTGT
ACATGCTGAATACATTTCCAACAGAGTCTGTGCAATGATAAGCTCTTTCCAATGTTAGT
TAAAGCTAACCCTAACCACCAACAAACCAACCTCTTAGCCAGGACTGATGGAAGGAG
[C, T]
CTGTGAGAGAATGCATTTAAACACTTGGCACCATGCCTGACAAGAGTAAGTACTCGATA
AATCAGTTATTGTTATTATCGCATCGGTATTATGACCATTATCCTCTTCTCTATAGGCTT
CAGGTTTTCTGTCTTTTATCAGCAGTATTCAGCAGAAGCCTTTGATTAACTAAG
TCTCTACTGTGTGTGGCTAGATGCTATAAAGCATCCAGAGAAGTGAATTTGGTCCT
GCTTTTAAAGTAGCTTATAGTCTAATTAGGGGAAGTAATCAGATAGAAGGAACTAACA
- 31437 ACTTGGCTTTGCCGGGGTAAGAGGGGGCACTTCTCTCCTTTCCCTCATGAAAGGAGGGAG
AGAAGCCAAAAATCTCCCTACTAGTCAACAACCTCAGGCACCCCTCCTTCTCTCTCTATT
TTATAGACTGGGAAGGGAGTGATGGTTGTGGAGGTGGCAGAGCCAGTTTCACTGCCTTT
TGTGAAGTCTTGAAGGAGGTGTCTATCCTCACTGCTGGCTTCTGTCTTAAAGCCTGGGG
AGAATTAAAGTCTCTTTGCTCAGTTTGGCACTCCAATTGCCAACATTGGGACAGCAGGA
[A, G]
AAGTTCCATCCAACATCCCATTAATATGTAATGTGTATTAGCACAGCGCCTGGCACTGG
GCAGGTATTTCTAAGTGATAGCCAATGCGAAGCCTACTTTATTATTTTCTCTTTGCTT
AACCTACAAGGTGTCTAAGACCATTTGTTGTCCACACATAGTAAGATAAACAGCACTGA
GACTGTGGTCTTTCTGCCCTGTGTCTTATCCACCTGGGAATCTGGAAAGCCAAGCCT
AGACACACTCGTTCCACAAATGTTTACTGAAGCTTGTCTATTCAAAGCACTGTACAGCT
- 31857 TAACCTACAAGGTGTCTAAGACCATTGTTTGTCCACACATAGTAAGATAAACAGCACTG
AGACTGTGGTCTTTCTGCCCTGTGTCTTATCCACCTGGGAATCTGGAAAGCCAAGCC
TAGACACACTCGTTCCACAAATGTTTACTGAAGCTTGTCTATTCAAAGCACTGTACAGC
TACAAAGACCATCTTTCTGAACCTCAAACAGGCCACATGGTTGGAATAACTTCAAGTA
TGGAGACCAAGAGAAAAGGTGGTTGTTGTGACGAAAGCTCTGAGTCCACACCTTCCAGGA
[A, G]
CTTATAGTTGATGCAATGGTGGGAGAAGTCTGAACCTGGATTCAATCTGCTTGATTCCGA

FIGURE 3SS



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TGAATGGTGCAGTAGGCAGACCATGAGTTCAGAGCAGGAAGAAACCACTGGTTCAAAGA
AGCATCTGTACATCGAAGCTGCTTTATAGTCTGTTGGGAAGCATGCATAATAATTTATT
CTTCTTTCTTTCTTTCTTTGGTCAACAAAGATTTCTTGAGTCCCTACTATGTGCCAGGTACT
CTTCTAGGTACTGAAGATGCAGCAGTGAACAAAGAAGATACAATCCCTGCCAGCGGAGC

33155 ACAGTGTCTGAATTTTACAAATTGCGAATTAGGAAATTGTTGCTCATTTTACAATTTGGT
TTCCCTCAGGATTCCTTTTAAGTAGCCAGCTACCCAGTACTTTTGAAATATGACTTGCT
TATAAAATTTGATAGGCTTGGCACGGTGGCTCACACCTGTAATCCCAGCACTTTGGGAG
GCCGATGTGGGGTGGATCAGGAGTCAAGACCAACATGGTGAAACCTGTCC
CTACTAAAAATACAAAACCTAGCCAGGCATGGTGGCACATGCCTGTAATTCAGCTGCTC
[G, A]
GGAGGCCAGGCAGCTAGGCAGGAGAATCACTTGAACCCAGGAGATGGAGGTTCAGTGTAG
CCAAGATCATGCCACTGCATCCATCCTGGGTGACAGAGCAAGACTTCATCTCAAAAAA
AAAAAAGATATATAACAAGTTTATAATATTCTCAATATGAACCTAGTAGAAAAAAG
CATGTGTTTTTAGGTCTTAGAGGCCTGGTTCAGTCTTATCTGACTCTAATGAGGTA
TAGTATTACCTACATTGATTAGCCCTTCTATACCTCATAGGAGATGCTCAAGACTGCTA

39487 CACTTTGCTCCATCCCTTGGCCTTCTGCAGTCCAAGCTCCATTCTGAGATCATCCAAGGC
TTCTCTTCTGTGTGATCCTTGGCCTTCTTGGAGTCTCTTTCTCCCATGTTCTCCACAAC
AGAGCATCTCTCTGACTGTTTTCATTCTGCATCTCACTCTTTCATCAGTATCTTTTCTC
TACCATGCCCCATAAATTTGGGTGCTCCTGAGGGTCTGTCTTGTCCCTGCTTTCTTG
TTGTACAACCTCCTTGATCTACTTCACTCAAGTTTGGTCCACAATTTCTATATTGT
[G, C]
AAGATTCAAATCTGCATCTCTAGCCATATATCCATTGCTCTGCTAGGCATTTCTACCTGA
ATATTTTATAGGCATGCCAGTGGCTCTTACTCTATGGCTCTTACTCTAAGTCTAGACTAC
AGCAGAAAGCAATGCTCTTTTATTAAGGCATAGTGCCCTCTTTCAGAAATAATTACAGCA
TACAACCAGGCCTGTGTGCAGCATTACAATTTGTCTAATAAACTCCATTCCTCTTGCCA
GAGTAAATGAGCCATTTACAGCCAGGGCGCCAAGATGGACTGTTGTTATTTTTCTGCCT

41449 TCAGATTCCAGGACACCAAGTTTCTGTGGGAGCTTCCCTAGGAATATAACTAAGGAATT
TAAATCAGGTTTCACTCATGCTGTACACTCTCTTCTCCACTCAGGCATTGGGTGTGGC
TTTTCCAAGCTTGAGAAAGGTGTGATCTGAGATGGGCTTGGGTATAGAGGGGAATTATAT
TTAGGTCTACCTGTATAGGAAAAAGTGCCCTTCCCAAAGTCTCCCTGGCCTAAAGTATAA
GAGATATGTGTGGGATTAGACCCAGAGCCCAAGCCAATAATGGGACCCCTTCTCACAA
[T, C]
GTGGCTACCTCCTGCTATCACCACAACAGCTATCATACCCATAACTACAACAGAGGCCAA
TTAACGTTGGTGATAATTGACAAATGTCAAGACATCCTACATTGAGGCACACTGTGCGTTT
TGCGTGAGCTTTTAAATTTGGTGGGAAGGAAACTTTTATACCTACACCTATCATGGAAG
GCAGAAGGTAAAGAGCTAAAATAAAGGTATGCCAAGAACAAGGCAGGAAAGAAGGGTTT
AACAACTTGAGGCCTGATCCATTGATTAGTGAAGAGGAACATGTTCAAAAACCACTCTA

42420 GGGTGACATGATAGATCTGTATTCTAGAAAAGTTAGTTTGCAGCAGTTGTGTCCATTGA
AAGGGACAGGATAAGGGAGATAGATAAGAAGACATGCTATGATGATACTAGATTGGAT
ACCAAGTGGTATGGTGGAAAGGAATGAGAGAACAGGGTCACAGATGAATGACTGCCCAAT
TTCAATCCATCATAACAGGATGTATAGGATTGCCCTTAAGTAAGATGGGGAATCCAAAAA
CGAGGAACAAGTTTGTAAAGTTTGGGGGCCAATGATGAATTCATTGAGGACATGTTGC
[T, C]
TTGGATATACCAATGGGACATTCATGTGAAAATGATCTCGGCAATCCTATCCTGGAATTC
AGGATAGGATCAGAATGAGGGACACAGTTTATAAGGTAAACAGAATGGAGGTGATATAGA
AGATAAGGGCATAGATGAGCTTACCAAGGGGAGAGTTTGAATGAAAAGAAAAGACCAA
AGGCTAAGCCTGTGCTATTCTTCTCCTCAACAATACGCTTCAGACCTGGGCACAAACCAT
CAGTGAGTGTGATGATAACACTACTGTGGGCAATCCCCCTCTATAAGGGCCTGATTTC

43256 AGAAAAACAATTAGAATGGAGAGCTAACTCTTTGGAAATGGTCAAAGAACACGGGTCTAC
AAAACCGTCAATAAAGCGCTAAGATGCCCTGGGCGGGGTCAAAAAGTCTACCTGGGCGGGG
TCAAAAAGTCTACCTGCTCAGCATATGGGGCCAGACATCTGACCTTTACCAACTCCACA
ATAACCACTTCATCTATGGATCCAGTCTTGGTATCACCTAGTCGCTGTTTCAAGTAACA
GAATATTTGGTTCTCAATGGTAGGTGACTGGAATACAGCTTACTTTCTCCACCCCTACC
[G, C]
CCAATCCTTTCTGCCCTTATAGTTTAAATTTGCTTGTAAATTACTTGGGAATACATTG
GGAGCCATTTATAGGGAATAGAAAGCAGACATGATGAACAGAATGCAGGGTGTTTTAT
TACTTCACATTGTGCTCAACAATTAGGAGGAATTCTAGAAGCCCTCCAGTGCCAGGA
ATTGGTTCATAGCATGAATAAATCAATATAGGTTGAGTATTCCTTACCAAAATGCTTGA
TACCAGAAGTGTTTTTGGATTTTGGATTTTTTTTTTGAATATTGCAATTATATACTTACC

43967 GGGTTTTGGGATTAGGGATACTCAACCAGTGGTAGGTTTGGGATGATATCAGCATGCTAA
GGTCAAAGAGACCTAGCTGGGAAGGTGGGAGGAACATGGAATTTTCATTCTCTGGGCAC

FIGURE 3TT

FIGURE 3UU



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CCATCTTCCCAAGTGCTTCCTGGAATTCTCTCCTCTCGTGGGCGCTCAGCTCCTTCATCT
TAGGAAAGAAGGTAAGATCTACAGACAAATTGATCTTTAAGTATCCTTAGAGCACTAC

56912 TGAAATACTTTAAACCTTGAGCTTCCTTCAGCACAGAAGTGGCTCTCTGAACCAATTTT
AAGCAATCCTGGCTCTATCTGTGCATGTTGATTTAGCCTGTGGTTATAGTGTTAAACAATT
TAGTGATTCACCTCATTTTAACTCTCTTTCCCTTTAGCAGGATCATTTTCTCTGTGT
AAGGGATCAACATTGAGGTAAGAATGGCTAAATAATAGCATCTCTGGAATACAAATGAC
TTTATAATAAAAGAAGATAAAAGGAAGAAGTAGGATGATTTCTCAGCTCTAATACACTT
[A, G]
GCAAATGCCATATGCTTTCTCCTGCGTGTACTGGTCAGGCCAGTTCTAGATACAATCATG
CGCTGCATAATGATGTTTGGTCAACAGTGGATTGCATATGTGACGGTAGTCCCTTAAAGA
TTATAATACCATATTTTGTCTGTCCTTTTCTAGGTCTAGATATGTTTAGATACACACAT
ACTTACCATTGTGTTCCAATTGCCTACAGTTTCCAGTACAGTAACCTGTTGTACAGGTTT
GTAACCTAGGAGCAATAGGCTATACCATACAGCCTAGGTGTGTAGTAGGCTATACCCTT

58480 ACTGTCCTTCCTGTGTCTGAGGGAAGGCATGTAACCTCTTGCTTATCTTCACCTGTGCTCT
AGATCCTGACCTTCTCTGGCAACCTCAGGGACCTTGCACCATCCATTCTTCTCGCCTAAT
GGCGAGACTCAGTCTCTCCCTCTCCCTTTCCACTCTCCCTTGCCTTGCCTTCTAGTATCTTCT
TACAAGCAGGTCTTCCAAAGTACTGCTTGAGGTCTGAGTTGGAGGGAACATGCCTCTACC
CTACTAAAAGAGAAATTCTCTGTCAGAAAGACCAAGCTGACTGACAAATCCCTTTACTG
[C, T]
AACTGCAGCTCTAGCTCCACCATTTTCTGTACTTACTCTCTGCTCAGGTTCCCTGGC
ATTGCTGATGTCTTTCAGCCTTTGTGCCCTGGCCCCCTTCTCTCTCTCCCTCATCTAGC
ACTACCTGTCAAATCAGGGACTTACTTTAAATTTATCCCAAATTATCATTGCCATCAT
CTCCACTGTACCTTATCATATGTTTGAATAGCGTTTCCATTTCCAAATGTTTTCGCAT
GCATTTCTCAATTGAGCCTTACGAATCCTAGAGCTGAGAAGGTAACAATTTATGAGTC

61128 ATACAAAATTAGCCAGTTGTGGTGGCATGCACTGTAGTCTCAGCTCCTTGGGAGGCTGA
GGCAGGAGAATTGCTTGAACATAGGAGGTGGAGGTTGCAGTGAACCTGAGATTACGCCACT
GCCTCCAGACTGGGAAACAGAGTGAGACTCTGTTTATATATATATATATATACACACA
CGTACATATACATGTATATATATACACATTATTATTGAAAGCAGCCAAAGAAAAATAACA
CATTATATATAGAGAAAGAGCAAATGATGAGTGACTTTATATGTATATATATGTGTGT
[G, A]
TATATATATAATGTGTATATATATACATATATATATATAGGTTAAGAACCTTCAGCACAT
GTATACCTATGTAAACAACTGCATGTTTCAGCACATGTATCCAGAACTTAAAGTGAAAA
AAAAAAAAAAGAACCTTCTGCATGCCAGTAACTGTGCTAAGTGATTAGGATGCAATGGTA
ATAAAAACAAAGTCCCTCTCCTTAAAGAAATTTCTATTAGAAAGGGAAACTGGTAAATA
AAAAATAAATATATAAATTACAATTTGTGAAAAGTGCTACACATGAAAGAGTGCTGAGAC

61320 TGTATATATATACACATTATTATGAAAGCAGCCAAAGAAAAATAACACATTATATATAG
AGAAAGAGCAAATGATGAGTGACTTTATATGTATATATATGTGTGTGTATATATATAA
TGTGTATATATATACATATATATATAGGTTAAGAACCTTCAGCACATGTATACCTATG
TAACAACCTGTGATGTTTCAGCACATGTATCCAGAACTTAAAGTGAAAAAAGAAAAAG
AACCTTCTGCATGCCAGTAACTGTGCTAAGTGATTAGGATGCAATGGTAATAAAAAACAA
[G, A]
TCCCTCTCCTTAAAGAAATTTCTATTAGAAAGGAAAACTGGTAAATAAAAAATAAATAT
ATAAATTACAATTTGTGAAAAGTGCTACACATGAAAGAGTGCTGAGACAGACATCAATGG
ATAAATTTAGATTGAGAAGGGCTCTGACAAAGCAACATTTAAGGTGCAACCTGAGAGAA
TAGAAGTTAAACAGGCAGATATTGGTGAAAGAGCAGTCTAGGCAGAGGGAACATCATTG
CAAAGGCCAGGGTAAAGAAGATCCTGGTAAGGAAATGACAGTGGAAGAAGGTTAGTGTA

61444 TATATATATACATATATATATATAGGTTAAGAACCTTCAGCACATGTATACCTATGTAAC
AAACCTGCATGTTTCAGCACATGTATCCAGAACTTAAAGTGAAAAAAGAAAGAACCT
TTCTGCATGCCAGTAACTGTGCTAAGTGATTAGGATGCAATGGTAATAAAAAACAAAGTCC
CTCTCCTTAAAGAAATTTCTATTAGAAAGGAAAACTGGTAAATAAAAAATAAATATATA
AATTACAATTTGTGAAAAGTGCTACACATGAAAGAGTGCTGAGACAGACATCAATGGATA
[A, C]
ACTTTAGATTGAGAAGGGCTCTGACAAAGCAACATTTAAGGTGCAACCTGAGAGAATAGA
AGTTAAACAGGCAGATATTGGTGAAAAGAGCAGTCTAGGCAGAGGGAACATCATTGCAAA
GGCCCAGGGTAAAGAAGATCCTGGTAAGGAAATGACAGTGGAAGAAGGTTAGTGAGCAG
GACTGTGCTAGGGCGGAGAGGCAGGGAAGTAGTTTAGAATTTCAATGCAATAGGAAATA
TGGAAGATTGAAGGCAGTTTTCATTATAAAATAATATGATTGCTATTTTAAAGCTACTT

62641 CCAGGCTGTACCAGGCACCTCAGATATGACAGTGAATGAGATAGGCAACATCTTTGCCATT
GGAGAGCCTACCTGAAGTGACATGAGGGAGTTGAAAGCAACTCTTATAGGAAATCATG
GTAAAGACGTCGAAGAGAAGAAAGATGAAGGGCAACACATGCACGGATGCCAAACATCT
ATCAGAGAGAAGGAATTTTCAGACCTGACCTGAATGATGAAAGGAGGTTTGGAAAGG

FIGURE 3VV



Docket No.: CL000891
Serial No.: 09/804,474
Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...



- AAAATAGAAGGGAAGGACAAGGGAATTATCTGGGCAGCAATATTTATCTGCTGTGGTGC
[T, C]
TCACTCTCTCTCTAATCCTTTTCCACCCAGCCCCAAATTTGAAAGGATTGCAGGGAGCT
CCTGCTGGAGTCAATTTCTGGTATTAATAATGTACAGAAAGGAAAGCTTTGGTTCTGAGTT
TGCAGGCTTCCCTGCTTTTCATTCCTATTGTAGAAAGCAGCTTATATAAAAGATGTGCT
GTGTGGCCCTTTGAGCTGCTGTGATTGTGTAGGACCCCACTGGATGGTATTTCGCATGAA
TTAATCTACTGTAGCATCTCTACAAATCAAGAGGCTGGCTTCTGTTTGAATGTCCCAAG
- 63023 ATTAATAATGTACAGAAAGGAAAGCTTTGGTTCTGAGTTTGCAGGCTTCCCTGTCTTTCA
TTCTTATGTAGAAAGCAGCTTATATAAAAGATGTGCTGTGTGGCCCTTTGAGCTGCTG
TGATTGTGTAGGACCCCACTGGATGGTATTTCGCATGAATTAATCTACTGTAGCATCTCT
ACAAATCAAGAGGCTGGCTTCTGTTTGAATGTCCCAAGGCTTTGTGCACAGGGCAAGCT
AAATGTCTCCCTACAGTGAGACTGAAAATGCCTTGGGTGCCCTTGTGATAGGATCTGAT
[A, G]
TATAGATGCATGTCTACAATTGCACAGTGGCTGCTGGCAACATTTATTACAATCTGAATG
TGAAATGGCTATTTCTGTTCAGGATTCTGATAAAAGTATCAGCCACAGTAGATGTATAA
GGAGCCTGGTTTCACTGCAACTGACTACAGTTATCTGATTTTTTTTTTCTAGTTCAATTTT
TAGTCTGTGGAGCAACAGAGATTTCCTCCCAATGATGCTTTTCTCAGTCACCAAGG
TGTGGTTATTTGGTTTTATGTAGAGGAGATAGAAACCAATCAGTCTAAATCATATTCTGT
- 63051 GGTTCGAGTTTGCAGGCTTCCCTGTCTTTTCATTCCTATTGTAGAAAGCAGCTTATATAA
AAAGATGTGCTGTGTGGCCCTTTGAGCTGCTGTGATTGTGTAGGACCCCACTGGATGGT
ATTTCGCATGAATTAATCTACTGTAGCATCTCTACAAATCAAGAGGCTGGCTTCTGTTGA
AATGTCCCAAGGCTTTGTGCACAGGGCAAGCTAAATGTCTCCCTACAGTGAGACTGAAAA
TGCCCTGGGTGCCCTTGTGATAGGATCTGATATATAGATGCATGTCTACAATGACACAG
[T, C]
GGCTGCTGGCAACATTTATTACAATCTGAATGTGAAATGGCTATTCTGTTCAAGGATTCT
GATAAAAGTATCAGCCACAGTAGATGTATAAGGAGCCTGGTTTCACTGCAACTGACTAC
AGTTATCTGATTTTTTTTTTCTAGTTCAATTTTTAGTCTGTGGAGCAACAGAGATTTCTCT
CCCCAAATGATGCTTTCTCAGTCACCAAGGCTGTGGTTATTGGTTTTATGTAGAGGAG
ATAGAAACCAATCAGTCTAAATCATATTCTGTTGAAATCAGAACCAAGGATCCACAATC
- 64989 GGTTTAAGAAAGCAAGGTCAGGTAAGCTTCACAAAGTAAGTCAAGAAGTATTTTACCTT
TATCTTCTGAAAGAAATTTATGCAACGTTGAAATTTTGTGTTTTCAGAGATGGTCAACAGAA
TATACAGAGAAACTATTTGGACTTAGAGCTTCCCTGGGGGAAGGTTTTTGATAAATAAT
GCAATTTCTTTAATACATAGTACTTATATTTTCTATCTTACCTTGTGACAATTCTGATGA
ATTGTGTTTTTCAAGAAGTTTGCCCATGTCATCTGAGTTGTTAACTTACTACACAAG
[T, G]
CTTTGATAATATTCCTATATTAGCCTTTGAATGTCTATAAGATCTGTCTGATGTTCCCT
CTCTCACTTTTTTAAAGAAGTCTTGCTAGAGGTTTACCAATTTTATTTGTTTTATTTTA
TTTTATTTTTTCTTATTTGAGACAGAGTCTCGCTTGTGCGCCAGGTTGGAGTGCACTGG
CTCGATCTCGGCTCACTGCAAGCTCTGCCTCCAGGTTACGCCATTCTCTGCCTCAGC
CTCCCGCAGCTGGGACTACAGGCACCAAGCACCATTGCCCCGCTAATTTTTGTATTTT
- 65929 TTAACCTTACACATTTCCCTTTAAGCACTGCCTTAGCTGTATCTCACAAATTTTGATATT
GTCTTTTCATTGTCTTTTATTCAATATATCTAATTTTCTTGTGATTTCTCTTTGGCC
CATAGGCTGTTTTAGAAATATGTAGTTAGTTTCCAAATATTCGAAGACTTTTCACAGATACC
TTACTATTATTGATTTCTAATTTAATTCTGCTACAATCCAAGTATATACATTATAAAGTT
TCAGCCTTTTGAAATGTATTAAGAATATTACCAGAGATAAGAAGATAAGAATATTACCAG
[C, A]
GATAAGTAGGGATATTTTATAAATAATAGACGAATTGATTCATCAAGAATATACAACAAT
CATAAATGTGTATGTGTCTAATAACAGAGTCTCAAATTATATGAAACAAAAGTACAGAA
CTAAAGAGAGAAATGGCCAATCCACAATCTTTATCTTTATCAGGTGATTTATCTGGTG
AACATTCCTTGTGCTCTTGAAAAGAAAGTGTATTCTGTAGTCATTGGGTATAAAATCTA
TATATGACAATGAGGTGATTGATAAAATTTATTAGATTGTCTATATCCTAAGTTTGTAG
- 66694 TCCGTTATTATTTATGCAATGTCCCTATTTATCTCTGGTCATATTCTTTATCTTGAAGTC
TTTTAACTGATATGAATGTAGCCACTTCATCCTTTTTATGCTTACCATTGTCATAGTTT
ATATTTTTTCCATTTATATTTACACTATTTATCCCTTTATACTTAAGTCCATGCTCTT
GTAGACAGTATGCAGTTAATTGTGCTTTGATTATTTTTACTCCTTTCTGACAATTTCTGC
CTTTCCATATAATATGCTTATCAATACAGTTGGAGTTAAATCTACCGTCTTGTATTGTTG
[C, G]
ACATCTCCCATCTTTTTGTGTTGTTCTCTCATTTCTTGTATTACCTTCTTTTCAGTTA
TTTTTTTTTTGTATTCCATTTTAATTCCTCAATTGGCTTTATAGCTATATATCTTTGTAT
TATTTTTTATTGTTTGTCTAGGGATAGCAATATGTATACTTACCACAGACAATTTAGAA
ATCATATTGTACCACTTCACATAAAATAGAAGAAGCTTGACGAGTCTATGTCCTTTTAC
ACTCCCATTTCTTTGTGCTATTGTTTCCGTATGTATTACATCACGTACATTGTAATAATCCA

FIGURE 3WW



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66755

TTTAACTGATATGAATGTAGCCACTTCATCCTTTTTATGCTTACCATTTCATAGTTTA
TATTTTTCCATTATCTTATATTCACACTATTTATCCCTTTATACTTAAGTCCATGCTTG
TAGACAGTATGCAGTTAATTGTGTCTTGATTATTTTACTCCTTCTGACAATTTCTGCC
TTTCCATATAATATGCTTATCAATACAGTTGGAGTTAAATCTACCGTCTTGTATTGTGTC
ACATCTCCCATCTTTTGTGTGTTCCTCATTTCCCTTGTATTACCTTCTTTTCAGTTA
[T, A]
TTTTTTTTTGTATTCCATTTTAAATTCCTCAATGGCTTTATAGCTATATATCTTTGTATT
ATTTTTTATTGTTTGTCTAGGGATAGCAATATGTATACTTACCACAGACAATTTAGAAA
TCATATTGTACCACTTCACATAAAATAGAAGAAGCTTGCAGCAGTCTATGTCCCTTTACA
CTCCCATCTTTTGTGCTATTGTTTCCGTATGTATTACATCACGTACATTGTAAATCCAC
AATAGAGTGTATAATCTTTTCCAAATCCTTGTGTGAATTAATAATTTTATGAGTAGAA

66879

CAGTATGCAGTTAATTGTGCTTGATTATTTTACTCCTTCTGACAATTTCTGCCTTTC
CATATAATATGCTTATCAATACAGTTGGAGTTAAATCTACCGTCTTGTATTGTGCACAT
CTCCCATCTTTTGTGTGTGTTCCTCATTTCCCTTGTATTACCTTCTTTTCAGTTATTTT
TTTTTGTATTCCATTTTAAATTCCTCAATGGCTTTATAGCTATATATCTTTGTATTATT
TTTTATTGTTTGTCTAGGGATAGCAATATGTATACTTACCACAGACAATTTAGAAATCA
[T, C]
ATTGTACCACTTCACATAAAATAGAAGAAGCTTGCAGCAGTCTATGTCCCTTTACACTCC
CATCTTTGTGCTATTGTTTCCGTATGTATTACATCACGTACATTGTAAATCCACAATA
GAGTGTATATACTTTTCCAAATCCTTGTGTGAATTAATAATTTTATGAGTAGAAAAAT
ACATATAACATTTTATTCTTACCTACATACTTACCAGTTCTGCTTTCTTTTCATTCTTAC
CTGTTTCAGTCTTATCTGTAAACCCGTTTTCATTTGGTGTCAATTCATTAGCATTTCAG

69156

GGCATGTCACCTTCTGCCCAAACCCCTTGGTAGCTTTCCAATTGCTCTTAGAATAACTTT
GTGATCTACAACATCTTCTTCAAGGCCCGCATGATACAAATCTGGCTATTTCTCTAGT
TTCTTATGTCACCACTTGTCCCTCATCCACCTTTTTTTTAGTCTTCTCTCTTTCTTTGA
ACTTCTACCACCAGGTTTTTTCACACGTTCTTCTTCCCCATTAACAATGATCCACCATT
CTCTTCTTTTATCCACTGTTACTCATCTCATAACTGAAACATCATTTCCCTAAGGATGGC
[C, T]
ATTCCTGGTTCAGTCAGTCTATATTTTATCCCCATCACAATCTTGTTTTACCCTATA
TTTTTCTTCAAGCACTTATTTAAGTTGTAATATGTGTGTATTATTTATGTCTGTCT
GCCCTCACAGAATCCACAGTCCAGGAGAACAGAAATCCTGCCTCTTTTATTATACCACA
TCCACAGTATTATAGTGCCTGTACCTAGTAGGTATGCAGTATGTACCTATTGAATAAA
TGAATTGACTTCTGTCTTTTAGATCGTCTACTCATTTTATCATTTGATGACAAACATAATA

69280

TATTGCACCACCTTGTCCCTCATCCACCTTTTTTTTAGTCTTCTCTCTTTCTTTGAACCT
CTACCACCAGGTTTTTTCACACGTTCTTCTTTCCCCATTAACAATGATCCACCATTCTCT
TTCTTTTATCCACTGTTACTCATCTCATAACTGAAACATCATTTCCCTAAGGATGGCCATT
CCTGGTTCAAGTCACTATATTTTATCCCTCATCACTCTTGTTTTACCTTATATTT
TTCTCTCAAAGCACTTATTTAAGTTGTAATATGTGTGTATTATTTATGTCTGTCTGCC
[C, T]
TCACAGAATCCACAGTCCAGGAGAACAGAAATCCTGCCTCTTTTATTTATACCACATCCA
CAGTATTATTAGTGCCTGTACCTAGTAGGTATGCAGTATGTACCTATTGAATAAATGAA
TTGACTTCTGTCTTTTAGATCGTCTACTCATTTTATCATTTGATGACAAACATAATACCTT
ACATTCTGTAGTCTTTTCACTCCTCAAAGAGGATTTCTGCATAGCTCCTCTGAGCCT
CACAAAACCTTTAAGGAAGATTGTGAATATTATCAGATAAAGATTGTGAGACACAGAAA

70647

TCCAGTCACTTTATAAAAGATGAAGAGGAGAACAGGTAGGCCAAAGTGGCTTTGTACTAT
TAAAGGCTGCTTGATTCTAAGTACATGTCTTTGCCACCTTTCTGCCATTCCACATTCT
AGAAGCCATGGGTAAATCAGCACAGGATCTTAACATGATAACATTGGTTTATAGGAGGTC
TCGTGCATAATGGACCAGACTTAGAGCAATGCTGTAAGGTAGTGATTAGGTGAGCAG
CAGATTCTGGCTTTAGGAGTTTATTATCAGATGCTTTTAAACGACTTGTGGCCAGGAT
[C, T]
CCTGCACCCATGGGAAGCATTGTAGCCTTAGAACTCTGGGAATTCTGAATATAATTCCTG
AATCAATCGTAAGGATGCATATCTGATGCTTAGTGCAACCAAGAGGCAGAAATTTGCA
GGCAGTGATCTTTGAAAAACAAATCTAGGTCAATTTCTGCCATGCTTCAAGCTTACTT
TTCCATCTTCTGTAGTCTTTTCACTCCTCAAAGAGGATTTCTGCATAGCTCCTCTGAGCCT
GTGCTAAGCTGTTAGCTTCACTCTATGAGACAGGCACTTCTAGCCCACTTTACAATT

71867

TCTGTCTGGCTTTTCTCAACCTTTCTCTTCTGCACTTTCTTGGATATAATCAAAGCACTA
CCAGGAACTCCAGAGTCGGCACCTTTTCATTTTGTGTTTTCATTTAATTATTCTCAGC
TGCTAAGTGTTTGACTGTTTAAAGGACTCTAGTGGTAAATATTGTCTTTAGCCTGGCAG
AAGCTGTGGTTTCTTTGATGAGCTCACACGGTGTGGCTTTTAAAGATGCTGCTGACCAGG
ACAGCTGACTGTCCCCAGTGGGTGCAGTCCCCAGCAGTGGGCTGGACCCCTTCCAGAAAG
[C, T]

FIGURE 3XX



Docket No.: CL000891
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Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

GGTTGGGAAACTCATTGTAGGTCCTCCAGCTAATTAATAGTGGAGCCAGGTTTGTACCC
AGACAACCTGATTTGAGAATCTGCAGTCCTAGATTAGTAACGTGTTGTGGCCTGTCACA
CATTTTAAATGACATTCTGTACACAGAACCATTTATAGTAACTTTGTATTGTTGAGCTGA
AAGCAGTCTGCAGATGTGCTGCTGGGATTTTCATTTCATCTTCAAAGAGGTGTTTTTTT
[-, T]
TTTTAAAGGAAAAATGCTTTTCTGAGGGTGGTATCTAAATTCATAAAAAATCTTTACGATCA
AGATTTTCACAAATTTTCATTCTGACTCTGTTGCATTGCCCTTCTTCCCATATTTCCAGTT
AGTTTGTATTGATTGCTGCATCTCCCTTGAGCCCATGGTCCCCCACAACATTTCTTGAG
AACTGTGCTCTGCCTTCACACTGTGAGGCAGCAGGAGCCTCTAGCGGCCAGCCACAG
TCCTGCAGCTCCTTCCCTCAGGACGTTTAATTTCCACATTTCTATGCAGTTACCTCACAG

74149

TTTGCTCAAGGTCACATAACTAGTAAGTGGGTGGAGCTGTGATGTGAAACTGGGCAGTCT
GATTCTGGGACCTGTGCTCTTAATCACCAATCTATATTGCCCTCCTACTTGAAAACATCCA
GGGAAAAATGTTGAGATAGATCAGCTGAAATCTTCTTGACAGTAAGCAGGGGCCACCTG
TCCTGGAGTTACATTCATCTTGTTCATTGTCAACGATTGTGTTCAGTGACACCCCTCTTC
AGCCCCAAGAACTTACCTGGGTGCTGTGACAAATGGACATGACTAGGAACAACCAAGTGACA
[T, A]
TGTAAGCCCATCCAAACACAGGGTAGGAAGTGGATGCTTGTCACTCTCTTTTGGTTATAAG
AAGCAGGAACCCAGTAAGGCCACCTTTTATATATCTATAAAGTTGAATATATAAGATATA
TGGGGGCCAGGCACAGTGGCTCACACCTGTAATCCGAACATTTTGGGAGCCCCAAGCAGG
TGGATCACCTGAGGTGAGGAGTTCAAGACCAGCCTGACCAACATGGTGAAACCCCATCTT
TACTAAAAATACAAAAATTAGCTGGGCGTGGTGGCACACACCTGTAGTCCCAGCTACTTG

74171

GTAAGTGGGTGGAGCTGTGATGTGAAACTGGGCAGTCTGATTCTGGGACCTGTGCTCTTA
ATCACCAATCTATATTGCCCTCCTACTTGAAAACATCCAGGGAAAAATGTTGAGATAGATCA
GCTGAAATCTTCTTGACAGTAAGCAGGGGCCACCTGTCTGGAGTTACATTCATCTTG
TTCATTGTCAACGATTGTGTTCAGTGACACCCCTCTTCAGCCCAAGAACTTACCTGGGTG
CTGTGACAATTGGACATGACTAGGAACAACCAAGTGACATTGTAGCCCATCCAAACACAGG
[G, A]
TAGGAAGTGGATGCTTGTCACTCTCTTTTGGTTATAAGAAGCAGGAACCCAGTAAGGCA
CCTTTTATATATCTATAAAGTTGAATATATAAGATATATGGGGGCCAGGCACAGTGGCTC
ACACCTGTAATCCGAACATTTTGGGAGCCCCAAGCAGGTGGATCACCTGAGGTGAGGAGT
TCAAGACCAGCCTGACCAACATGGTGAAACCCCATCTTACTAAAAATACAAAAATTAGC
TGGGCGTGGTGGCACACACCTGTAGTCCCAGCTACTTGGGAGGCTGAGGCAGGATACTTG

74918

TAACAGGTGCTGAAAACAGGAACTGGGAAGTTGCCAGTACCTTCCTGTCTTTTCCCTGG
AACCAACGGTTTCTTACTTGCTTCTCTCTGCACCTCTGTCTCATTTCCCTCTCTCTTCA
GATGATTTTTCATTGTTGTCATCACACATAGAAAAATCAGGATCCACCTCCCAAGTTT
ACATATCGTTGTTTCAGGCAGCCATAGTATCCTTAAACTCCACATTCAGGGAGAAAGC
TTGGGTCAAGGATTACGCCAAAGGGCAGCGAAATGGAGTAAAGATGCAACTGCCAGGTCT
[A, G]
TGGGCAGCAAGGAGGCCGGGAAGGAAGCCGCTGTTGTGGTCCAAGTGACAATTCAACAGC
TCAAAGCATAAGTAAGTTGTGTGCTTTTTCACAGATGGAGAACTGAGGCACAGAAGGAAC
CTGGCTGGGGTCCAGGTCTCTGGCCTTGTGTCAATGCTAGGTCACTGGATGTGGCGTCT
GATTTCTACAGGAAATGTGGTTTCTCTACTTTGTCCCAGAGCCCACCTCAGAGCACTGGCT
GGCCAGGGGGTCTAGGGCCCTCTTAGGATAGTCTCAGGCCAACAGCCCCAGGACAGAAG

75386

GGATGTGGCGTCTGATTCTACAGGAAATGTGGTTTCTCTACTTTGTCCCAGAGCCCACT
CAGAGCACTGGCTGGCCAGGGGTCCTAGGGCCCTCTTAGGATAGTCTCAGGCCAACAGC
CCCAGGCAGAAAGCAACCAAGTGAAGTTATGAAAGAAAGCTTTTGTGATCTGTCAAT
GGCACCCCTGTAGAGCCAATACTTAGAACACCTGGATTGTAATACTCATCTCCAAACCT
GTGTTCTTTCTACCACGTGACAAGCCCTTGTAACCTCACACGTCTCTATGAGGTGAGC
[G, A]
CTTGACAGTCCACACTTTAGATAAGCAATGGAGGCTCAGAGGTAAGCAGCTAGTTCAA
GGTTATGCACCTGAGCCAGGATGTGGACACAGCTCTGTGTCTGATTCCCTAAGGGCTGTG
CTTTAGCCACTTTGCAATACTGCTGCTGTCTGCTTCATTTCCTCATCTGTGAGATGGGAA
CGATAATACTCAACTCATGATGATCTATGAGGAAAAACAGATAAAAGAAGAGAAAGT
GCTTTGAAAACATAAGCAGCCCTGGCAGATGGGAATTATTTTGTGCTGACACACATCC

77751

CAATGCCAATGTTTCTGAAGCCCATATTAATGCCAAATCTGAGTCAGTACTGGAGGT
AGAGACATGAATAAGATGGTCCATATTAATTTAGAGGATCTTTGGTTGCAAGGGCAGCA
CACCCAGCTTGAATTCACCTTTGGAGAAATGGGATTTTGGCTTGCAAGCAAGCA
TGAGAAAGAAAGTTCCAGGGATGATGAAAACCAGGAATGCAATGTCTCCAGAAATCTTT
CTTTTTTCTTTTAGGCCATCTTTTTTCTCTCAAACCTGGTTCCTCCACTGGGTGGAGAC
[G, A]
TTACTACCAGCAGCACTCAGACCCACATCTTCAGTTTAAATGTTGAAATGGACTGTCAG
AGAACATTTAGGCCATTCTGTGGGAGAGATAGGCTATGTAAAAAGATAGCCACTCC

FIGURE 3ZZ



Docket No.: CL000891
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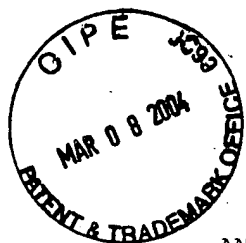
- CATGTGAACAATGTGGTTAGGATTAGAGGCATGAATATACCCCAAACCAGGGGTGTGGGA
AGGAGGTTGACACTCTAGGTGATAATACCCAGACCTTAAGGAGCTTTCTGTCTAGAGGGA
GGTATGGACATGGACAAGTAATCAACAGCTACAAAGCAGAGCTGCCAGCTCTGCAACACA
- 78264 ACCTTAAGGAGCTTTCTGTCTAGAGGGAGGTATGGACATGGACAAGTAATCAACAGCTAC
AAAGCAGAGCTGCCAGCTCTGCAACACAAGAGCCCTGAGAGGCATGACAGGGGCAGGGTG
GGGATCCATGTGGGTCTGGATTGAAGTGAGGAGGGGCATCAGGAAAGCATTCCAGGAGAG
CTGAGGGACACTTGAGCACACCCTCAAAGAATGACTGGGGGTCTAGAGGTATACAAGGGA
GGAAGTGCACCCGAGACAGAAACAATCACATAAGCAAAAATGCAGAAGAATATGAGGATC
[G, T]
GGGAAGGGCAAGTAGCTCAGTAGTGTGGAGGCCAAGGGACACGAAGGAAGGTGATAAAG
CCCTGATGTTAAGGATAGAAAAATCAAAGTCCCTTGAAAAATCATGTGGAGTTAGGATCTC
AAGAACCCTACAAGGATTTCTTTAGAATAGAATCAAAGAAAAACAAGTTTACAGTCTGT
GAGGGTTGCATAGGAAGTAACGTGGTGAGAAATGTTGGCTTGAGAACACATATCCATAA
CACAATGGTGTTTAGAGGATTTGGGGGAAGGGAGAGAAAATCTCAAATTGTCTCAGTAA
- 80986 GCATCATATTGCATGAAAACAGCAAACGGAAGTCACAATGGCTCGACGGTGTAAATGAAGC
CACACAATATGTATTAACACATCATCTACACAGATGGATTCAAAGATACCTTCTTTGTG
TCTAAGTCCCAAAATCTGTGTTTCCCTGGCTCTGTTCCCTCATATCTAGTCATTCTCCAAGT
CAGCATGCCAACTTGAAAGTGTCAATTTCAAACCTGCTTCTCTCTCTGGAAGTTCT
TCCTCTGCCCAATTGCTCCACAATCCCCACCTCTTTCACCCAGTAGCAAACCTTAAATTTA
[T, A]
CTTTTACTTTGTCTTACTTCCCCTTCTTATATTCAAAATGTTTCTCACTTGCACTCTCTTT
TCATTCAATTTCAAGCATTTATGAGCTCCTGTTATGGTTTGGAACCTGTTCTTCATGCT
GGAGGTGGTCTTATAACAAGTAATTTCAATTGAGTATTTAGTATGTTAAGTGCCATCCC
AAAGGCAAAACACCAGCTGTGGAGGCTCCCAAATCAGTCTAAGGAAGTTGGGAAAAGCA
TCTCAGAGAAGATGGTGTCTGAGATGGGGAGGATGTGTGGAAGTGGGCAAGGAAGAGAAC
- 83609 TTTGGGCAATTGTAGCAATTTTAAACTATGTTAGATGGCTAGAGATTCTTGAGAATATT
TCTTTTCTTGAAAAATCATAAGGCTTTGGATAGTGGTACCTATAGAAGCTGACATCAGCA
GCAGCCTGCCCTCCAGTCGATCAGGGCCTTTGGAACCTCACGGGGCTCCTCTACTGACAGC
CCCATCGGTTTCCCTCCAGCACACGTAACCTCAGCATGACTCTGGGTAGTAGAGGGTGGT
TTATGGAATCTGATTCTCTCAGAAAGAGGTGGATGCAAAACATTCCAGAGCAGAAGG
[C, T]
TTGGCATGTCTGGTCTTAGGCAGAGGGAAGTGGAGATACTTGTCTATTGTTCTTGAGAT
TCCAGCAAAAATAGCCCATACAGAGGAAGAAGATATCAGGTCAAATGAAGGCTTTGGTG
CTACAACATTGTCTTAGAAAAAAGAAAGAAATTTGGCCAAGTGCAGTGGCTCAGCACT
TTGGGAGGCTGAGGGGGCAGACCACCTTGAGATCAGGAGTTGAGAGCAGCCTGGCCAAC
ATGGCGAAACTCCGTCTCTACCAAAAAGTATTAAAAAATAGCCGAGTGTGGTGGCGGGCT
- 85271 CCTTGGGGCATCACATTAAGTAGTTACCAGATTGAACTGCAAAACATTGCTATCCAGGAGA
AATCAGGTCAATATTTACCTTCATGGCAATACCAGTACAGTCCAAGGAGAATGCATAGA
AGGAAAGAAATCATAATCTGATTGTATGTGTTTGTAGTAGTAAATAATAAATATTATT
ACTATTCCTATACAATTTGTGTGTGTTGTTGTTTGTGTTGTGTCATGAAAATGGG
GTGCTAATCTATTTCCCTTCCCAACACCAGTGTCTCAGAAAGAAATTTCCACAGATAGAGAA
[G, T]
CTATAGGTTATGAATTTGGCCTTGATGGATTCTGGGTCACTATTTCTCAATGTTTGTCCA
TGTCATGTGAAGCTCTTAAGATAAAGAAACAATGTCTTACTCGTCTTTTAACCTCTTTAC
CCCCAATAGCCTATCACATACTTTGCCCATGGAACCTCAATAGACATTTGTAAATGGAAT
TTAATTTCTGAGGTCCAGTAAAGCCTTTTCCATCCTTCCCTACTACACAGTTTGTCTA
ACCATGCTTCCCTTCCATCATCCACCTTATAAACGTTATTACTCATTTCTTCCATCACAT
- 87770 CTCCCTACCTGTCCCTCCTTGACCCAGGAAAAATTGCCGGGATATGAAAGTTAATTATG
ACCCAAGGGAATTGGTACAGATGGGGAAGAAAGAAATGCATTCAAGAGCATTTCATCAG
TATTGAAATTACACAGAAGGCTGGTGAATTTGGGCTATCCATTCTTGCTCCCTCTGTGC
CCATAATTCCTTGGCCTCCTTCAATTTCAATTTCCCTTTGGTTCAGAGGAATGCTTGATG
GCTTAAGCTAGCTCAGTTGGCCAAGCATTTGGAGAAACAGAGAGGTGTATGACACAGCTA
[C, T]
ACTCCCATGGGGCTTACAGGGCAAGGTGAGAGAAGACAGAAGTTGTATGTGCTGGGTGCC
ACGTGGTAGCTACAACTAGAAATGAGACCAGTTTCGGAAGAGGAAGAGGGCTTGACAGAC
CTGAGTCATGGGGACAGTTTCTTCAGGAAATGGGATCTCAGCTCTGCCCTGTATGACAGG
CTTACATAATAAATATGTTTCATTGTTGTTGTTGTTATGTTGATTAAATAAGATTTTGT
TTTAAGAAGATTTTGTAAAAACAACCTGAACAAATGCAATCTCCTGCCAGAGCAGGCAGCA
- 87837 GGAATTGGTACAGATGGGGAAGAAAGAAATGCATTCAAGAGCATTTCATCAGTATTGAA
ATTACACAGAAGGCTGGTGAATTTGGGCTATCCATTCTTGCTCCCTCTGTGCCCATAAT
TCCTTGGCCTCCTTCAATTTTCATTTTCCCTTTGGTTCAGAGGAATGCTTGATGGCTTAAG

FIGURE 3AAA

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CTTAGCCTCAGTTGGCCCAAGCATTTGGAGAAACAGAGAGGTGTATGACACAGCTACACTCCC
 ATGGGGCTTACAGGGCAAGGTGAGAGAAGACAGAAGTTGTATGTGCTGGGTGCCACGTGG
 [T,C]
 AGCTACAAACTAGAAATGAGACCAGGTTTCGGAAGAGGAAGAGGGCTTGCAGACCTGAGTC
 ATGGGGACAGTTTCTTCAGGAAATGGGATCTCAGCTCTGCCTTGTATGCAGGGCTTACAT
 AATAAATATGTTTTCATTGTTGTTGTTGTTATTGTTGATTAAATAAGATTTTGTTTTAA
 AGATTTTGTAAAAACAACCTGAACAAATGCAATCTCCTGCCAGAGCAGGCAGCAGCAAAAG
 AGATTAGGAATATAACCCCCCTTGAGACGTTCCCTTACCTACCTGGTGTCTGGATTACCTA
 87866
 TGCATTCAAGAGCATTTCATCAGTATTGAAATTACACAGAAGGCTGGTGAATTTGGGCT
 ATCCATTCTTGGCTCCCTCTGTGCCCATAAATCCTTGGCCCTCCTTCAATTTCAATTTCC
 TTTGGTTTACAGGAATGCTTGTATGGCTTAAGCTAGCCTCAGTTTGGCCAAGCATTTGGAGA
 ACAGAGAGGTGTATGACACAGCTACACTCCCATGGGGCTTACAGGGCAAGGTGAGAGAAG
 ACAGAAGTTGTATGTGCTGGGTGCCACGTGGTAGCTACAACTAGAAATGAGACCAGGTT
 [C,T]
 GGAAGAGGAAGAGGGCTTGCAGACCTGAGTCATGGGGACAGTTTCTTCAGGAAATGGGAT
 CTCAGCTCTGCCTTGTATGCAGGGCTTACATAATAAATATGTTTCATTGTTGTTGTTGTT
 ATTGTTGATTTAATAAGATTTTGTTTTAAAGAAGATTTTGTAAAAACAACCTGAACAAATGC
 AATCTCCTGCCAGAGCAGGCAGCAGCAAGGAGATTAGGAATATAACCCCCCTTGGAGACG
 TTCCCTTCACTACCTAGTGGTGTCTGGATTACCTAAAGCTTCAGTTCAGTTCAGGCTTCCAGCC
 88238
 CTTGTATGCAGGGCTTACATAATAAATATGTTTTCATTGTTGTTGTTGTTATTGTTGATT
 AATAAGATTTTGTTTTAAAGAAGATTTGTAAAAACAACCTGAACAAATGCAATCTCCTGCC
 AGACAGGCAGGCTTACAGCAAGAGATTAGGAATATAACCCCCCTTGGAGAGCTTCTTCACT
 ACCTGGTGTCTGGATTACCTAAAGCTTCAGCTAAGTAGGGTCACCCCCCAAGAAATTAT
 TTTAAAAAATTGAAATCTGATATTTTTAGAAAATCTTATCAAGGATATTTAATTGGACT
 [A,C]
 TTTACACCTATTTAGGGTCAGTCGGTTTGGACAAAGTATGCAGGGGTCTTGGAAATCAGAC
 CACTGGGGTCAAATCCTAGTTCTGTCTCAGTTTCTAGCTGGGTGACCTTGGACAAAGTTACC
 TGACTTCTAATAGCTTCAGATTCCCTCATGGGCAAAATAGAAATGCTACTAGTACTTAATA
 GTGCTCTGAGAAGGATTCAATGAGAAGGATTAATGTATGTAAGCAGAGTGTTCGCCA
 TAGGAAGCTGTTATTTATAAGGGGGGAGCATCCTAAGGCTCCTCGCAATTTAGGAAAC
 89219
 AGAGGGCAGTTGGAAAACTTCACAAGACAATCCAGCCTGATTGTTTTGACATGCCTGACT
 TCAGGCTGCTAAAAATGAGCTCGAGGAATCAGATAGGAAAAAGAGATAGGTGATGCAATT
 TTATTCCATCTCCCAATTTCTGATGACAAGATTGTTTGTGTTTAACTCCAGTTAAATAGT
 ATTTATCAAATTTCTCTGGGTGCTTGTCCAAAGAAAAGTACCCAGATCTACAATTAGA
 ATCTGGGACTGGGACTTAGGAATTTGGCACTTTTACAATTATACCAGATGTTTCTAATATG
 [A,G]
 GTACTTCAACCACTACCTTTATAGAAGTGCTGCCTAGGACCTCTCTTCTGGCAGGTGAA
 GTGGAAGGAGGTTTTGTGCAAGGGAGATTCTCCACTTCAACTTGAGTGTCTTGGCTTGTA
 TCCGCTTTGTTTGGTTCTATTTCAACAAAGGCTTTTCATCTTACATAAATTTTCTTCAGC
 TTTAAATAATTAGTTTTTGGTAACCATTTGGTATACTGGAAGAACATTAGATTTGGAGACT
 AGGTGGCTTGAGTTCAATTTCTGCTCTGCCATTTACCAGTTGTGTGACATTGGGCAAGT
 89331
 ATGCAATTTTATTCATCTCCCAATTTTCTGAGTCAAGAGTTGTTTGTGTTAACTCCAGTT
 AAATTAGTATTTATCCAAATTTCTGGGTGCTTGTCCAAAGAAAAGTACCCAGATCTAC
 AAATTAGAATCTGGGACTGGGACTTAGGAATTTGACATTTTACAATTATACCAGATGTTT
 CTAATATGAGTACTTCAACCACTACCTTATAGAAGTGCTGCCTAGGACCTCTCTTCTG
 GCAGGTGAAGTGGAGGAGGTTTTGTGCAAGGGAGATTCTCCACTTCAACTTGAGTGTCT
 [T,C]
 GGCTTGTATCCGCTTTGTTTGGTTCTATTTTACCAAAGGCTTTTCATCTTACATAAATTT
 TCTTCAGCTTTAAATAATTAGTTTTTGGTAACCATTTGGTATACTGGAAGAACATTAGATT
 TGGAGTCCAGGTGGCTTGAGTTCAATTTCTGCTCTGCCATTTACCAGCTGTGTGACATT
 GGGCAAGTTGCCAACCTATCTATGTTCATTTCTCATGTAAGATAAATCCCACTTACCAG
 GCCACTTTTGAGGACCCAGTGAAATGATGTGTAACCATTTTAGGAACACTGGATCATTTCT
 90794
 GATTTTGGCCAAAGGTACACACAGCTATAAGCAGTAGAACTAAGATTTTAACTCAAGTTTCTA
 TGGCCCCAGAAATTTATGTGTTTCTCTCTCCATACCACAGGACAGGTGCAAGTGAGAGAT
 TTTGCTGGAAGCACTGGGCTTTTGTGAGCAGGCCATATAAAAAATCTGAGCCCAGAGCTCA
 ACTAAATTATTGGAAGAGACTGGGCCAAATATAAGGCTTCTATCTAAGCAGCACTGTGT
 TTTCTCAAGGACTGAGGAAAAATGAAGGGGGAGGTTTGGCAAGGCTGCATTTCCAGGGTGC
 [A,G]
 TGATTATATGGCATGGGGGTGGGGGCCATTATGATGCCCGGACATGGAACCTTACACCAGT
 GCAGAAAGGTTGATTAGAAGCCCTAAGCCAGAGAATGTTCAAGTGTGATAAATGCCATT
 ATTTTTTCCCTCATTCATTCAATAGATTTTTTTTTTAGATGGAGTCTCACTCTGTGCCCC
 AGGCTGGAGTGCAGCTGGCAACCTATCTCAGCTCAGGTAACTCTGCCTCTGGGTTCAAG

FIGURE 3BBB



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Title: ISOLATED HUMAN TRANSPORTER...

AATTCTTGTGGTCCAGCTTCTGAGTAGCTGGGATTACAGATGTGCACCACCACGCCTGG

92404 TGCTCTGTACCTACCTGCCAGCTGTTTCCAGGGATGTGGTAAAGATGAATGGGCAAGA
TCTGGGAAAGTGTGTTGAAATCCTTGATTAAAGGCCCTCCAGGCAGATGTAGAATTTTAA
ATGTGTTATATTACTGCCACTATTTGTTATGCTTTCTTTTATCACCCAGAAATTCACCAT
CTCCTGTTTCAGGTGAACGAGTCTGCCTGACTCTTACCTGCCCTGGAATGGCATTGGAAAG
GTAGCAGCCCTGAGATGTGCCATATAAACAAACATGTTTTTAACCAAGGGATCAGGAGGC
[C, T]
TTCCTGGCTGGCTCCTGTGACGTGGTCATCACCTCTCTATAACTCTAGGCTTTCCCAAGC
TTATTTTATTTCATCAATAGGACAGGAATATGTAATGTCTGCTTGAATGAGTATTG
GCTACAAGCCATCTGCCCTCTGAACAGAGGTGAAAAGTGGAAATCGGAGGAAGGGCAGATG
TCTTTTGCAAGGGAACAGACTGTTTCTGCCACTGCACTCTGCCAGGCAAAAGAGTAA
AGGAACAGCACTCAGGAGAATTCAGTGAAGCGAGGGCAGGGTGCAAAAGGAACTTGAGAA

92672 CAAACATGTTTTTAACCAAGGGATCAGGAGGCCCTTCTGGCTGGCTCCTGTGACGTGGTC
ATCACCTCTCTATAACTTAGGCTTTCCCAAGCTTATTTTATTTCATCAATAGGACAGG
AATATGTAATGTCTGCTTGAATGAGTATTGGCTACAAGCCATCTGCCTCTGAACAGA
GGTGAAAAGTGGAAATCGGAGGAAGGGCAGATGTCTTTTGAAGGGAACAGACTGTTT
CTGCCACTGCACTCTGCCAGGCAAAAGAGTAAAGGAACAGCACTCAGGAGAATTCAGT
[A, C]
AGCGAGGGCAGGGTGCAAAAGGAACCTGAGAAATTTGGTACTGGGACCCAAAATCAGATTC
TGGCATTCTTCTGGGAAAGAAATGGGCATGGGTGGGGTTTTATCTGTCAATAAAGCATC
CAGAATGGGGCTAGAAGGAAGTAAATTCAGTTGCCACCTCTGCCTACTGGACAGCCACGG
AGAACTTCTCCTTATCCAAGGTGAGGAGCCCTCCGGAGTACATACTGATACCATTTGGTT
CTCCACACATACCCCATGGAGATAAAAAACAGGACCCCTGGAAGCCCTGTCCGTGTTTAA

92684 TAACCAAGGGATCAGGAGGCCCTTCTGGCTGGCTCCTGTGACGTGGTCATCACCTCTCTA
TAACTCTAGGCTTTCCCAAGCTTATTTTATTTCATCAATAGGACAGGAATATGTAATG
TCCTGCTTGAATGAGTATTGGCTACAAGCCATCTGCCTCTGAACAGAGGTGAAAAGTGG
AAATCGGAGGAAGGGCAGATGTCTTTTGAAGGGAACAGACTGTTTCTGCCACTGCAC
TCTGCCAGGCAAAAGAGTAAAGGAACAGCACTCAGGAGAATTCAGTGAAGCGAGGGCAG
[A, G]
GTGCAAAAGGAACCTGAGAAATTTGGTACTGGGACCCAAAATCAGATTCCTGGCATTCTGG
GAAAAGAAATGGGCATGGGTGGGGTTTTATCTGTCAATAAAGCATCCAGAATGGGGCT
AGAAGGAAGTAAATTCAGTTGCCACCTCTGCCTACTGGACAGCCACGGAGAATTCCTCT
TATCCAAGGTGAGGAGCCCTCCGGAGTACATACTGATACCATTTGGTTCTCCACACATA
CCCCATGGAGATAAAAAACAGGACCCCTGGAAGCCCTGTCCGTGTTTAAACCAATGGGATTG

93132 CTGCCTACTGGACAGCCACGGAGAACTTCTCCTTATCCAAGGTGAGGAGCCCTCCGGAG
TACATACTGATACCATTTGGTTCTCCACACATACCCCATGGAGATAAAAAACAGGACCCCT
GGAAGCCCTGTCCGTGTTTAAACCAATGGGATTGAAACATGGAATGAAGTGGCCCAAT
CCACCTGTGAGAGACCAAGAGCAGTGTGGATTAAACAGGGAATGTTACCCTGAAAAGG
CATTCAGCTTCCACTGGGCGAGCAGGTACAGTGCAAGATGATCCCACTTAAATTCCTAA
[G, C]
ACAGGAAATAAGGAAAGATGTTGTGGAACCTCAAGACCTCTCAAAGCATACTCCTTTGTA
GTTCTTCCGCAGACCAGACCAGGAATTCAGAAAACACCTACCTGGTTCCAAACCAGCA
CCTGCCAAACTTCTACCCCTCTTCTGACCCTGTCTGGGAGTTAAGAAAAAAAATCAC
TTTATTGGTTGCTCCAGTTATACTTAAACAGACAGACCATCATCAAATTAAGTGACATG
TACGACTGCTTATGTATGCCAGTTACTGTGCTGTGGGGTTTTGGTTCCATTATCTCAT

93537 TGGTTCCAAACCAGCACCTGCCAAACTTCTACCCCTCTTCTGACCCTGTCTGGGAGTTA
AGAAAAAAAATCACTTTATTGGTTGCTCCAGTTATACTTAAACAGACAGACCATCAT
CAAATTAAGTGACATGTACGACTGCTTATGTATGCCAGTTACTGTGCTGTGGGGTTTTG
GTTCCATTATCTCATTTAATCCTCTCAAAAACCTGTTAGGTAGGTTTTATTATTGCACT
CATCTTAGATTAAAGAACTGAGGCTCATAGAGATTCCGTAATTGTCAAAAGCCCTAAA
[A, T]
CATAATTACTGCCTCCAGATGTCTCTGATTCTAAGGCCAGGCTCTTAATCAGTAAATGA
TCAAATGAATAATGATTTTCATGGCATCTGTATCGGAAAGAACAAATGGAGAATATGCTT
AACCAGAGTCATAACCAATAAATGAACCTGACAGCAGAGCCGTGATTCTAGCCAAGATG
ACTATTTTCATGCATGTTTGAAGGCCAGGAAAAGGAGTTAGACTTGTTTGGGAAGGGA
AACAGGAGCTATCAAGGTGAACTTTCTTAAGAGTAGCCCAATAATAGTGCTCGGGAGGG

93557 CCAAACCTTCTACCCCTCTTCTGACCCTGTCTGGGAGTTAAGAAAAAAAATCACTTTA
TTGGTTGCTCCAGTTATACTTAAACAGACAGACCATCATCAAATTAAGTGACATGTACG
ACTGCTTATGTATGCCAGTTACTGTGCTGTGGGGTTTTGGTTCCATTATCTCATTTAAT
CCTCTCAAAAACCTGTTAGGTAGGTTTTATTATTGCACTCATCTTAGATTAAGGAACT
GAGGCTCATAGAGATTCCGTAATTGTCAAAAGCCCTAAACATAATTACTGCCTCCAGA

FIGURE 3CCC



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- [T, C]
GTCTCTGATTCTAAGGCCAGGCTCTTAATCAGTAAATGATCAAAATGAATAATGATTTTC
ATGGCATCTGTTCATCGGAAAGACAATGGAGAATATGCTTAACCAAAGTCATAACCAAAT
AAATGAACTTGACAGCAGAGCCGTGATTCTAGCCAAGATGACTATTTTCATGCATGTTT
GAAGGCCAGGAAAAGGAGGTTAGACTTGTGTTGGGAAGGGAACAGGAGCTATCAAGGTGA
ACTTTTCTAAGAGTAGCCCAATAATAGTGCTCGGGAGGGAGTAATGTGTGCAAGAATAG
- 95067 AGAGAAATGGAAGCAGGGAGATAAATTAGGTGGTTATTGCAAGAGGCCAGGTAAGAAGAG
AAAGTGGTTTAAAGTAGGTGGTGTGGCAGAGAAGACGGTTCCAAGCAGAGGGGGACCAG
CTGACAAATAAGCGCGGCCACTCACGCAAGCCCAACAAAGGCAGAAAGGCAGAAAGGCAAAA
GTGAAGGCCAGAGAAAAGTGGACACCACCTTTCCAGAGCACAGTTCAAAGGCAATGTCCT
CAAAGAAGACACTCCACCCTCTCCCATTTCTCCCTATTGCTTAAATAAGAAGGATA
[C, T]
GCGGCCTATGGCAAACCTTGGGCAGGCACGTGGGAGCTGAGCTCTTGCAAAGGCAGATA
GTTCTCTGGTGAGAGAGAAAAGGAAGGGCCAGTGAGGAGTGAAGGAAGAGACGAACAGA
GAGCCCGAAAGGCTGAGAACGTTGTCTGGCTTCTGAAAGGCTTAAGGGGTAGCTCTGG
AGGGTGAATAAAAGCCCTAGTTATATTAAACACACACGCACACACGCACGCACACACAT
GCGCGCACACACACACACATACACACAGTTGAAGGAGACCTGCAGTTTCCAAAAACAA
- 96000 TATTATTGATCTTGATTACTGAGTTTTTAGGTGTACCCCTTAAATGTTGCACCTCTGACTT
ACTAGTCTCACCCCTGATCCCTGTCTGGATCTATGCCTGTCTGTTCTATATCAGCCTCTT
GCTTTGACCATAAGAATAAATTCAAGCTTTAAGCATAGAGGAAATAGGATTTCTGTCTC
CCTTCCCCACCTTTGTGATAATCTCAGCTTCTGCTTTTAAAGTCTATCTCCAAGTAGTT
TGCCTACTATGTTCTCCCAAGGTCACAGGTTCTGTGAACTAGCAGCAGGCTAGATTG
[T, C]
CACATTAGCACAAAGGATCCACTATTCTGCAGCCGAGCTGGGACAAGCACTTAGGCCCA
CTGACTCCAACCCCTCAATAGCCTGGGACCTACGTTGTCTCCAGGTGGTATAAAACAAGA
ATTTCCCTTTTGAAGTGGGAGAAAAGGGAAGAACTCTAAATTGGAAAACAGGTCATCTCG
AATTCTCAGAGTGGAATTTCTGACAACCCCTTTGGGACCCACAATTCAACACACCCCA
AATGGGACAGTAGCTAACATGCAACCTGTAGGCTGTTCTGTCTATCCAGTGCCACTGTGC
- 96877 GGGAAATTAAGGTGGAAGGCAGGGCGTTTTGACTGCATTTGACCCAAGTCTGAAGAGCCA
GCTCCTCTCTCTTCTAATTATTAGAAGGTTTTGTTTGGACCCAGTGTTCACGTGTATA
CAATACAACTTCTCTCTTTTCTACTTGGATCAAATTTGTTCTCTCAAAATAAGATTCCC
AGCAGTGAGAGAAGACAAAGACAGAGAGATCCAACATCTCTAAAGCCATGAATCAGATAAC
CAGCCACTTGTCTCTTCAAGTGTGGGAACAGATACACTGTAAATAAAATGATTTTATA
[G, T]
ATTCTTCTCACTGCCTTTTCCAAGAGGGGATTTATCAACTTCAGGGCACAGCAATCATTT
ATTCCCAGACTACTGGCATATATATATATATTTACTTCTCTTGAAGTAAAGGAAAG
AGAGAATTGGAGTTGTGAATATTCCTGTCTCCCTCACCCAGCCCCCTTGAAGTGAGTCA
GGACAACTTGGGGCCCAATGGAGCTGTAAGTAACTGAGTCACATGCAGAGATGAAACC
TTCACAGACCCACTGATATGGAGGTTGAAGATTAAATTTCCCTTTGAGAATAACTGGGTA
- 97271 ATTTACTTCTCTTGAAGTGAAGGAGAGAAATTTGGAGTTGTGAATATTCCTGTCTCCC
TCACCCAGCCCCCTTGAAGTGAGTCAGGACAACTTGGGGCCCAATGGAGCTGTAAGT
AACTGAGTCACATGCAGAGATGAAACCTTCACAGACCCACTGATATGGAGGTTGAAGATT
AAATTTCCCTTTTGAAGTAACTGGGTAACACTCATACAGAGACTACTTTCAAGAAAGGCCA
GATCCTCCCTCTAATGTATAGTGCAACGTTCTTAAACCTCAGCCCACTCCGTCATACCCC
[A, C]
ACTCAGATGAATACACATAAGCAGTAATATAAAGCACTTCCACCATAGGGCAGCAAA
GAAGAGGGAAATCTTTATATGGAAGAGTGGAAGGAAGGAAGGGAAGGGAAGGGAAGG
AAGGGTAAGAGGAAGAATTCTCAGGGTGAGCAGAGGAATGACATGTTTGGGGCATAATGA
AGATAATTGAAGTGACAGTTTGTATGGAATAATTTGAAATATCAGGTGGCAGGCCAGG
CATGGTAGCTCATGCTGTAATCCAGCACTTTGGGAGGCCAAAGCAGGCGGATCACCTG
- 97470 ACTGGGTAACACTCATACAGAGACTACTTTCAAGAAGGCCAGATCCTCCCTCTAATGTAT
AGTGCAACGTTTCCCTAACCTCAGCCCACTCCGTCATACCCCACTCAGATGAATACACAC
ATAAGCAGTAATATAAAGCACTTCCACCATAGGGCAGCAAGAAGGAGGGAAATCTTTA
TTATGGAAGAGTGGAAGGAAGGAAGGGAAGGGAAGGGAAGGGAAGGGAAGGAAGGAAT
TCTCAGGGTGAGCAGAGGAATGACATGTTTGGGGCATAATGAAGATAATTGAAGTGACAGA
[G, T]
TTTGTATGGAATAATTTGAAATATCAGGTGGCAGGCCAGGCATGGTAGCTCATGCCTGT
AATCCAGCACTTTGGGAGGCCAAAGCAGGCGGATCACCTGAGGTACAGAGTTTGAGACT
AGCCGGGCCAACATGGCAAAACCCATCTCGACTAAAAATACAAAATTAGCTGGGTTTA
GTGGCGCATGCCTGTAATCCAGCTACTCGGGAGGCTGAGGCAGGAGAAATCATTGAGCC
TGGGAGGCCAAAGGTTGACGTGAGTCGAGATCATGCTACTACACTTCAGCCTGGGTGAGAG

FIGURE 3DDD



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97518

CCTCTAATGTATAGTGAACGTTCTTAACCTCAGCCACTCCGTCATACCCCCACTCAC
ATGAATACACACATAAGCAGTAATATAAAGCACTTCCCACCATAGGGCAGCAAAGAAGGA
GGGAAATCTTTATTATGAAGAGTGGAAGGAAGGAAGGAAGGAAGGAAGGAAGGGT
AAGAGGAAGAATTCTCAGGGTGAGCAGAGGAATGACATGTTTGGGGCATAATGAAGATAA
TTGAAGTGCGAGTGTGTATGGAAAAATTTGAAAAATATCAGGTGGCAGGCCAGGCATGGT
[G, A]
GCTCATGCCTGTAATCCCAGCACTTTGGGAGGCCAAAGCAGGCGGATCACCTGAGGTCAC
GAGTTTGAGACTAGCCGGGCCAACATGGCAAAACCCCATCTCGACTAAAAATACAAAAT
TAGCTGGGTTTAGTGGCGCATGCCTGTAATCCCAGCTACTCGGGAGGCTGAGGCAGGAGA
ATCATTTGAGCCTGGGAGGCCAAAGGTTGCAGTGAGTCGAGATCATGCTACTACACTTCAG
CCTGGGTGAGAGAGCTTTCTTTTCTCTCACAAAAAAGAAAGTTCAGGTTGCAGA

98476

TGTCCCTTTCCCTCTAGCCACAGGTAACACGCTCTCCAGGCACTGGGAAAGTGGGTAATT
AGGAAAGCAGAGGAGTACCCATGGGCTGTGATGCCAGTTATAAACCCAGACATTTTCAGA
ATTAACAGAATGAGCATCAAGTCTCAATGGGTCTACATCCATAAACATGTCCAGCAGT
CAGCTCTTTACTGTCTAGTAGAGCAAAATGTTCTTACACTTTCCCTAGGGGAAGCCACAT
CCTCAGTAGGTTATCTCTGATGAGTCCAGCTAGTCACAGGTATGTAGAAGCTGCATGCAG
[C, T]
AGAGGGCTCAAAGGAGGGTCCAGAATAGATACCAAAGCAAAGGGGAGTCTGTGCACGTT
CTCACACGCACCCCGAAACACTCTTTTGTTCACAAAATAGATGGTGTAGGGTAGTTCCA
AGAGATCATTTAGCTCAGGTTCTCTGCCCTCCATAAAATAAATAAGCCTTCCATATTAGTTG
TCTGTTGCTGTGTAGCAAAATGTCAGAAACGTAGAGGCTTAAAGCAATACCCATTTATTA
TCTCGCAAGTTCTGTATCTCAGAAGTCCAGGCAGGCTTGACTGGGTTCTGTGTTCAAGTT

98779

AGGGCTCAAAGGAGGGTCCAGAATAGATACCAAAGCAAAGGGGAGTCTGTGCACGTTCT
CACACGCACCCCGAAACACTCTTTTGTTCACAAAATAGATGGTGTAGGGTAGTTCCAAG
AGATCATTTAGCTCAGGTTCTCTGCCCTCCATAAAATAAATAAGCCTTCCATATTAGTTGTC
TGTGTCTGTGTAGCAAAATGTCAGAAACGTAGAGGCTTAAAGCAATACCCATTTATTATC
TCGCAAGTTCTGTATCTCAGAAGTCCAGGCAGGCTTGACTGGGTTCTGTGTTCAAGTTCT
[C, T]
GTGAGACTGAAATCAAGGTGTGGCCAGGCTGGGATCTTATCTGGAGGCTCTGAGGACAT
ATACGCTTCCAACCTTATTCAGGCCATCAGCAGAATCCCGTCTTGTGGCTTGAGGTTG
GAGGTCCCCGTTTCTTGTCTGGCTGTCTCCAGGGACCACTCTTTCACCTACAGGCTGC
CATGTTCTTCTTCAACAGACCCGTTCTCTTCAAAACCAAGCAGCATGTAGAATCTTT
CTTGTGGCTCGTATCTTCTGGCTTTCCCTTCTCTTTAGCCAGAGAAAGTTCTTGTGCTT

99218

CTGGCTGTCTACCCAGGGACCACTCTTTGCACCTACAGGCTGCCTATGTTCCCTATTCACAA
GACACCGTTTCATCTTCAAACCAAGCAGCATGTAGAATCTTTCTGTGGCTCGTATCTTT
CTGGCTTTTCCCTTCTTCTTTAGCCAGAGAAAGTTCTTTGCTTTTAAAGCGTTTCATGCGATT
CAATCAGGCCCACCTGGATAATGTCCCTATTTTAAAGGTAAGTGTATACCGTATAACAT
TTCAGGAGTGATAACAGCACATTTACAGGTTCCAAGGATTTGGGGCAGAACATCTTTGGGG
[C, G]
AACATTTTAGAACTCTGCCTCCCACTCACCCATAATCTTTTAAAAACCAATCTTGA
AGCCTTTTTCCTCAAAGGCCTTTTGAATAAGCACATTTATACCTAACTTCATCAGACA
CCCACTTTTGAGCAACACTAGCATGTGGCAAAATAGGCTGTAAATCAATCAGAACTATTC
TTTCCACCACAATCTTTCTCAAACACATGGGAGAATCTGACACTGTCTAGTGTATACC
AGAGCAGACTCCTACCATCTCAAGAGCTGACTGTTAAATGTTAGTAATTGTGGACAT

100538

TGTAACATATTGGTAAGTTAATTTGAAATGTGGTTTCTAGATCTCTCATCATCCTAGTCAC
CCTACTCTGGATGTACTCCAAAGTCCCTCTCAAGATATAGTGTGAGAAATGACCTAATTA
GTCCAGCATTTGACTGAAACGCTAGACTTTGACTCCAGCCCCCATCTTGACTGGCACT
AGCATTCAAGCCGCTTCTCCTCTTTCCCTGGGTCTTTAATAGAGTCAGAGCGACTTCTCC
AGGGGATCTTTTGCCATGGACAGTAGCATCCACACGCTGGGGCCTTGTAAAAAGG
[C, A]
AGGCTCTCAGGCCCCACCCAGATCTACTGAATCAGAATCCACACATTAACAAGATGCTT
GGGTGATTTCATGTGCACATTAAGTTTGAAGAAGCACGCTTTCAGGGACGAGATGACACA
CTTATTTTAAAGAGAAGCCCAATTAGAGACCTAAGCCTTCTCATGGAACAGGGGCTTC
CCCTCAGACCTTTGGGAGAGGGTTCAGGGAAATATCAGTGTGGGTGTTGGTGACAGGTG
GCGGTGGGGGTTTCAAGTCCAGTTCAAAGAGCCAGAAACCTGGCAGGGGAAGAGATGGGG

101045

GGAAATATCAGTGTGGGTGTTGGTGACAGGTGGCGGTGGGGGGTTCAGTCCACGTTCA
AAGAGCCAGAAACCTGGCAGGGGAAGAGATGGGGCAGTGACACCAACCGGAAAAATAAA
GGAAACTACAAGAAGAACCCAGCTAAGAGATGTGAGGCTTCTGAAAGCTCCCATGGAAAG
GTTTCGAGCTCTCCACCTGCTCGGTCCAGCTGCCCCAGGTCAAGGAAGCTCTGTGAGTG
TTAGCTGACCCGGAGCAGCAAGGATACATTCAGAAGTGATGAAAGGGAACGCTTCTTGAC
[A, C]
GGGTAAAGAGTCATTTCAGTAGGAATGAGACAGGAAGAGGTCACAGAGTCAGAAGCCAGC

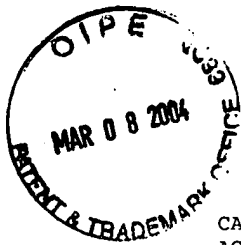
FIGURE 3EEE



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- CTGTACTCAGAGATTATTTCTGGCATGGGAGGGCCGAAGGGTTAGGAGGCCACCTACTCA
CAATACAAATACAGAGGCAGATCCACTTATTACCTGCCTGTGCTGGGATTTCAGTGTG
GAAATTCTGTGCCTCCTCACTGTGGCTGCAGCTTGGGAATGACATCCAGAGCTTACCCAC
CTGCATAGAAATAAGCTATAGGTGTAATAGGGGGACATAGGCTAAAAATCCTAGCTCAGC
- 101232 GCTCCTCCACCTGCTCGGTCCAGCTGCCCCAGGTCAAGGAAGCTCTGTGAGTGTTAGCTG
ACCCGGAGCAGCAAGGATACATTTCAGAAGTGATGAAAGGGAACGCTTCTTGACAGGGTAA
AGAGTCATTTCAGTAGGAATGAGACAGGAAGAGGTCACAGAGTCAGAAGCCAGCCTGTAC
TCAGAGATTATTTCTGGCATGGGAGGGCCGAAGGGTTAGGAGGCCACCTACTCACAATAC
AATACAGAGGCAGATCCACTTATTACCTGCCTGTGCTGCTGGGATTTCAGTGTGGAATT
[C, G]
TGTGCCTCCTCACTGTGGCTGCAGCTTGGGAATGACATCCAGAGCTTACCCACCTGCATA
AGAAATAAGCTATAGGTGTAATAGGGGGACATAGGCTAAAAATCCTAGCTCAGCTGCTTAA
TAGCTGTGCGACTGAGCAAGTTACTTAACCTCTTTGAGCATCTGTTTCTCATCTTTAAA
ATGGAAGTAATCATAATTGACCAGGCCAGTGGCTCACACCTATAATCCCAGCACCTTGG
AAGGCCGAGGCCAGTGGATTGCTTGAGCCCAAGAGTTTGAGACCAGCATGGTGACACCTC
- 101266 CAAGGAAGCTCTGTGAGTGTTAGCTGACCCGGAGCAGCAAGGATACATTTCAGAAGTGATG
AAAGGGAACGCTTCTTGACAGGGTAAAGAGTCATTTCAGTAGGAATGAGACAGGAAGAGGT
CACAGAGTCAGAAGCCAGCCTGTACTCAGAGATTATTTCTGGCATGGGAGGGCCGAAGG
GTTAGGAGGCCACCTACTCACAATACAAATACAGAGGCAGATCCACTTATTACCTGCCTGT
GCTGTGGGATTTCAGTGTGGAATTCTGTGCCTCCTCACTGTGGCTGCAGCTTGGGAAT
[G, A]
ACATCCAGAGCTTACCCACCTGCATAAGAAATAAGCTATAGGTGTAATAGGGGGACATAG
GCTAAATCCTAGCTCAGCTGCTTAATAGCTGTGCGACTGAGCAAGTTACTTAACCTCTT
TGAGCATCTGTTTCTCATCTTTAAATGGAAGTAATCATAATTGACCAGGCCAGTGGC
TCACACCTATAATCCCAGCACCTTGAAGGCCGAGGCCAGTGGATTGCTTGAGCCCAAGA
GTTTGAGACCAGCATGGTGACACCTCGTCTCTAGAAAAATACAAAAATTAGCCAGGCAT
- 101290 TGACCCGGAGCAGCAAGGATACATTTCAGAAGTGATGAAAGGGAACGCTTCTTGACAGGGT
AAAGAGTCATTTCAGTAGGAATGAGACAGGAAGAGGTCACAGAGTCAGAAGCCAGCCTGT
ACTCAGAGATTATTTCTGGCATGGGAGGGCCGAAGGGTTAGGAGGCCACCTACTCACAAT
ACAATACAGAGGCAGATCCACTTATTACCTGCCTGTGCTGCTGGGATTTCAGTGTGGA
TTCTGTGCCTCCTCACTGTGGCTGCAGCTTGGGAATGACATCCAGAGCTTACCCACCTGC
[A, G]
TAAGAAATAAGCTATAGGTGTAATAGGGGGACATAGGCTAAAAATCCTAGCTCAGCTGCTT
AATAGCTGTGCGACTGAGCAAGTTACTTAACCTCTTTGAGCATCTGTTTCTCATCTTTA
AAATGGAAGTAATCATAATTGACCAGGCCAGTGGCTCACACCTATAATCCCAGCACCTT
GGAAGGCCGAGGCCAGTGGATTGCTTGAGCCCAAGAGTTTGAGACCAGCATGGTGACACC
TCGTCTCTAGAAAAATACAAAAATTAGCCAGGCATGGTGGCAGGTGCCTGTAGTCTTAG
- 101326 AAAGGGAACGCTTCTTGACAGGGTAAAGAGTCATTTCAGTAGGAATGAGACAGGAAGAGGT
CACAGAGTCAGAAGCCAGCCTGTACTCAGAGATTATTTCTGGCATGGGAGGGCCGAAGG
GTTAGGAGGCCACCTACTCACAATACAAATACAGAGGCAGATCCACTTATTACCTGCCTGT
GCTGTGGGATTTCAGTGTGGAATTCTGTGCCTCCTCACTGTGGCTGCAGCTTGGGAAT
GACATCCAGAGCTTACCCACCTGCATAAGAAATAAGCTATAGGTGTAATAGGGGGACATA
[G, A]
GCTAAATCCTAGCTCAGCTGCTTAATAGCTGTGCGACTGAGCAAGTTACTTAACCTCTT
TGAGCATCTGTTTCTCATCTTTAAATGGAAGTAATCATAATTGACCAGGCCAGTGGC
TCACACCTATAATCCCAGCACCTTGAAGGCCGAGGCCAGTGGATTGCTTGAGCCCAAGA
GTTTGAGACCAGCATGGTGACACCTCGTCTCTAGAAAAATACAAAAATTAGCCAGGCAT
GGTGGCAGGTGCCTGTAGTCTTAGCTACTCGGTAGGCTGAGGTGGGAAGATTATATGAGC
- 102342 ACCCTGTCTCAATAAATAAATAAGAAGTAATGAAACAAGAAAGTTCTTCTTATGGTCTCA
TGGTGGTGAGCAATGTAAGCATATATATTATCTTAGAATTCTTCCTCCTGTATAAAG
AAGGCCTCCTCAATGTATTAATCATCTGTTCAACTAATAAATGCTGCTTACTCCACTT
TCACTCTAAAGGAACTCAATGGCTAAAGAGAACCCTTCCCTTTGACAGACCCGTAGGAT
CAGAGGCCTGATTGTAATGTCCTCGATGCAAAGGACTATTTCAAAGGCCAGCCAGGCAG
[C, A]
CCAGACATGTATTTCTAATCGTCTCCAGGTTGTTTGATAGAAGATCTCCTGGGAGCAGG
TTTCCGCAGCAGCTCAGCCAGGTCTGTCTGGGAACGCTGTGTGATTGGCACCTCCCTT
GGCAGAAAGCTTGGAGGAAAGGCAGGTGCAGGTCTGGAGCCTCTGACAGCATTACTGGC
TCTAGGAGTAGCTGCTCAGGATAATCTGTCCCATGACCATTAAGTAAGTAACTGCCACTGTGC
GGGAAGAAGAACTGGAATGGGGGGCCAAAAAATCTGAAAACCTCACTTGAACAGT
- 104489 GTTCAAGAGCTGGAAGGGATTTTCTAGCCTCCAGGCAAGGTAATACCATAAGTCCCAAC
AGTGATGCCCTCCTGGGAATGATCTCAATGGGAGAATCCTATACCCTGCCTCCTCCATT

FIGURE 3FFF



Docket No.: CL000891
Serial No.: 09/804,474
Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

- CATTCTTGTCTGATGGTGGTTCTGGCTGGCTAACCTAAGTTACTCTTGCCACTAGTTA
ACGCCTGTCTTATTTCTCTTGTCCCCACCTAAGATGTCAATCAAAACAGCAGAGCCAT
GCTATGTCACATGATGTTGTCTGTCCAGCCAGAGCTTGTGTCTGATGGGGGCACAGA
[C, T]
TAGATTTTGAGAGAAATCTCTCTGTTACCACCCCTTAACATTCCAACCCCTCTAATAGCC
CATTTAGGATTATCATACTGTTTCATCCAAACCTTTTCATGACCTGATTCTATTTCCAG
CTTCAACCACCCCTTGGGTACCCACCTGTACTTATTGAGTTTCCCTAGTTTCTGAATTA
ATGACTGAAGATGATAAGCTTCCCTTACATATGACTCTCAAACCACCAAACCTGGGATTGT
TGTTACTCTTAGTGATAATGGTTGCTATTTATGAACTTTTAAAGGGAACACAAACCT
- 105266 AGGCCAGAGCATCATGGCCTTTCACAAGTTGAAGAGCCACGGGCTTTCACGGTAGCCAG
CCACGCTTTTCCATGACTGGGGTGGGTGTGGCAAGTGATGAGGGTTTGGAGTTCATGTGG
TGGGGTGGCAGGACAGGTGTCTTGGTAACTGCTGTGTCATTCACTTCAGGAGCAAAGG
ACCAGATCTGATTCTGAGGATCAACAATATGGACACTGCAGGCTCTGTAGACATCCAAA
GCTCTAATGGTGACTTGGGGAAGCTCAGGAGGGCAGGGAGGTTGTACCCATTTAGAATGT
[A, G]
AAGATTCTTATTTTATAAAAAAGAAAAAGGAGACTGAAGGCCTCAGTCTCCTCCAACA
AAGCCAGGCTGTGGGTAGCAGAGTCTCAAAGGCTGCAGGCCCATGGCCACTGCCAGGG
CTCCTGCTCAGGCCTCCTCACTCCCACAACCTGAGGGGAGACCCAGTTCACACCCACCCA
CCTAGCAGTGTCTCACACCCACCGGAGAGGCTAAACATCTTCCCTGGGAAATGGTCCC
AAAATGTCCCTGCAGTAAGCAACCATCTGGAGAGGCCAGGTCTACATCTGTTTTTAAAG
- 105338 ATGACTGGGGTGGGTGTGGCAAGTGATGAGGGTTTGGAGTTCATGTGGTGGGGTGGCAGG
GACCAGGTGTCTTGGTAACTGCTGTGTCATTCACTTCAGGAGCAAAGGACAGATCTGAT
TCTGCAGGATCAACAATATGGACACTGCAGGCTCTGTAGACATCCAAAGCTCTAATGGTG
ACTTGGGGAAGCTCAGGAGGGCAGGGAGGTTGTACCCATTTAGAATGTAAAGATTCCCTAT
TTTATAAAAAAGAAAAAGGAGACTGAAGGCCTCAGTCTCCTCCAACAAGCCAGGCTG
[T, C]
GGGGTAGCAGAGTCTCAAAGGCTGCAGGCCCATGGCCACTGCCAGGGCTCCTGCTCAGG
CCTCCTCACTCCACAACCTGAGGGGAGACCCAGTTCACACCCACCCACCTAGCAGTGTG
TCACACCCACCGGAGAGGCTCTAAACATCTTCCCTGGGAAATGGTCCCAAAATGTCCCTG
CAGTAAGCAACCATCTGGAGAGGCCAGGTCTACATCTGTTTTTAAAGCTCCAATAAATA
AATAAATGAAGGAAGAAAAAAGAAAGAAATGCAGAACAGGGTGACTAAAAATGGCAT
- 105570 ATTCTTATTTTATAAAAAAGAAAAAGGAGACTGAAGGCCTCAGTCTCCTCCAACAAG
CCAGGCTGTGGGGTAGCAGAGTCTCAAAGGCTGCAGGCCCATGGCCACTGCCAGGGCTC
CTGCTCAGGCCTCCTCACTCCCACAACCTGAGGGGAGACCCAGTTCACACCCACCCACCT
AGCAGTGTCTCACACCCACCGGAGAGGCTCTAAACATCTTCCCTGGGAAATGGTCCCAA
ATGTCCCTGCAGTAAGCAACCATCTGGAGAGGCCAGGTCTACATCTGTTTTTAAAGCTC
[C, A]
AATAAATAAATAAATGAAGGAAGAAAAAAGAAAGAAATGCAGAACAGGGTGACTAAA
ATTGGCATGTATTTTAAATGTTTATATTAACAACTAACACCTTTTAAATGAAAAGCA
ATATAATTTGTGCTAGCCACAAATCATCGTAGGACTGAGAAAGGAATCGTGATTCTGAGA
GCCCTAGAGTTAATGTGATCCAGCTGGCTCATCCTGTGACTGCAGAAGCCTGTTTGGAG
ATAGTGTGAGTGTCTTTTCAGGCCCTCTGTGAATTGCCAGAATGTGTGACATGAGCCAAA
- 105928 AAAATGGCATGTATTTTAAATGTTTATATTAACAACTAACACCTTTTAAATGAAAA
GCAATATAATTGTGCTAGCCACAAAATCATCGTAGGACTGAGAAAGGAATCGTGATTCTG
AGAGCCCTAGAGTTAATGTGATCCAGCTGGCTCATCCCTGTGACTGCAGAAGCCTGTTTG
GAGATAGTGTGAGTCTTTTCCAGGCCCTCTGTGAATTGCCAGAATGTGTGACATGAGCC
AAATTTCCCCCAGCATCCCCGCCGCCACCACCACCCCGACCCCAACCTCCCCGCCG
[G, A]
CTCCCATAGAATAGTCACTGCCATACAGAAAAAGAGAAGTTCTACTATTTCTGGGCAAGA
TTTCCACAAACAGTTTGTCCCTTTCTGCTTTCATGAAATAAACCATTTGGATCAACGTC
AGCTGATTGCAAAAAATTTCCCTTGTCTCAAAAGCAAGACTGATAAGGAAGCAAAACATGG
GAGGACCTTAGTGGCCGAGCCTTTATGTGTATGTTATTTTCATTGCTCTCATAACTGCCCT
GGGATGTGTGAAGCATGATTCATCCTGTTGTTTATCAGTTAAATTATGTATCCAAGATT
- 106459 TAACTGCCCTGGGATGTGTGAAGCATGATTCATCCTGTTGTTTATCAGTTAAATTATGT
ATCCAAGATTACACAGCCTATCCAGGATTAGAAGTACAGAGCCCTCGGCTGTGAAGCTTGA
GCTCTTTCTTTTCAGTCTTCAAATATGATCATGCCATGAAGCAGCACAAAGCCAGGAGG
AGCCAGTGTAGGCTGGAGGGTCCACTGGCAGCCACTCTCCTCCGTGCCCTGTGGTGT
GGGGCAAACTTGGATCTTTCTGAATCTTTAACTGTTTCTCTTCTCCGTTTGTGCT
[G, C]
CTGGCTGACTTGTCTTCACTCTACTCCTTGTCTTATGATACTTATTTTCCATCCACAGC
AAAACAATTACATCAAGGTAATTGATGATGAGGCATATGAGAAAAACAAGAACTACTTC
ATTGAGATGATGGGCCCCGCATGGTGGATATGAGTTTTCAGAAAGGTGTAGTACCCCTGT

FIGURE 3GGG

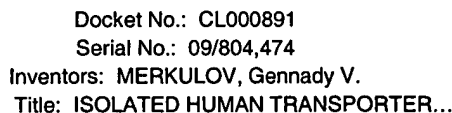


FIGURE 3HHH

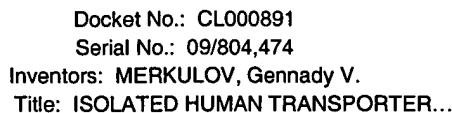
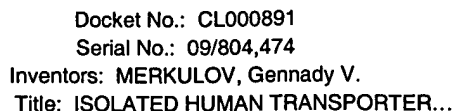


FIGURE 3III



CCCCATGGTCATTTTGGCCACTCATAAGTTAGCTACTCTGGCAGGGTTGCAACTTACACA
GTTTTTCATGATAACCTGGATTCTCTCACTCCCTTTTTTACAGAATTGGATGGTAACTTGTA
TCTTACACAGTCATGAGTGACCACTACCCATTTGGTTCCCATCTCTCATCTCTCCATT
CCTAGCCCTTAGGGTAGCCGGGAAAGCATAGGAGCAAAATGCCCTTACCAGGCCCTGGTGC
TCAGCAGCCTCTCCGGCTGCTCACACCTCTTGCTGCTGCTCTGTGCATGCTCCAAAGGCT
[G,T]
CTTTTTCGCGTATGGCTGCTGAGCTCTCACCTACTAAGCTCTCTGCTTTCTTTATGCTGCC
AGCAACCACAAAACTGGTGATACTTTCAAGATGGGACATTAATGCTCTTTCTCTTTCTT
TCTTCCATTTTCTGTGATCATTTTGCAAAACAGCGCTCCTGTTATCTCCAGGTAAGAGGT
GCTTTGTCCCCCTCTTTTCTTCCACTCTTGCCAGTGCCATTATTTGGTTTAAAGACCA
TGTCTCTTGAATTTATTGAATAAGAACTCGAGGCTCAAGTTAACTGACAATTTCTCCCAA

GAAAGCATAGGAGCAAAATGCCCTTACCAGGGCCCTGGTGCTCAGCAGCCTCTCCGGCTGC
TCACACCTCTTGCTGCTGCTGTGCATGCTCCAAAGGCTGCTTTTTCGGTATGGCTGCT
GAGCTCTCACCTACTAAGCTCTCTGCTTTCCCTTTATGCTGCCAGCAACCAAAACCTGGT
GATACTTTCAAGATGGGCAATAAGTCTCTTTCTTTCTTTCTTTCTTCCATTTTCTGGTAT
CCATTTGCAAAACAGCGCTCCTGTTATCTCCAGGTAAGAGGTGTCTTGTCCTCCCTCTTTTC
[T,C]

TTCCACTCTCTGGCAGTGCCATTATTGGTTTAAGACCAATGTCTCTTGGATTATTGAAT
AAGAATGCAAGGCTCAAGTTAACTGACAAATTTCTCCCAAGGACTGGGAGATTTATTTTC
CCACATGAAGCAATTATGAGAAAGCAATTGTGAGGAAGCAATTCCTTGAGCATCACTTC
TGCTTGGGGACGTGGGTTAAGGCATAGCTGATCTCTCTGGGACCCAGGAAGAGAAATTAAG
GCTTAAACAAGAGGATGGTGGGTATAGACTTCTCTGAGTCTTAATTCATCTGCCATCTC

TACTAAGCTCTCTGCTTTCCCTTATGCTGCCAGCAACCACAAAACCTGGTGATACTTTCAA
GATGGGACATTAAATGCTCTTTCCCTTTCTTCTTCCATTTTCTGGTATCCATTTTGCAAA
CAGCGCTCCTGTATTATCTCCAGGTAAGAGTGCTTTGCCCTCTTTCTTTCTCCACTTCT
TGCCAGTGCCATTATTGGTTTAAAGACCAATGCTCCTTTGATTATTGAATAAGAAGTCGA
GGCTCAAGTTAACTGACAATTTCTCCCAAGGACTGGGAGATTTATTTTCCCACATGAAG
[C, A]
AATTATGAGAAAGCAATTGTGAGGAAGGCAATTCTTGAGCATCACTTCTGTCTGGGGAC
TTGGGTTAAGGCATAGCTGATCCTCTCTGGGACCAGGAAGAGAAATTAAAGCTTAACAAGG
AGATGTGTGGGTGATGACTTCTCCTGAGTCTTAATTCACTGCCATCTGATGTTGTGGGG
GAAGAGACAGTCGAGATTACAGAGCTGGAATCTCTTAATTAATTGTGACAGGATTTGAAA
AAAAAFACTTTAATCCCAAGGGATCCAGGAAATAACCAAACTGTTGTGAGAATAGGAAA

AGAGAATTTATTTTGAAGAGATTCTCATGCAGAATCTAGGTGCTATAGAGGACGTACACC
TACTTTGAGAGTATGCTTGCAATGAGTGGAAACCAATCATAAACAACTTCAACTTTCATGA
GCAGATATGAAAGCATTTTTCAGCATATCTAGCAATACTATAACTCTTTGTGCAGACAG
TGGCCTTACACAGACAGTTTCAATATATTTTAAAGAACGCTTTCATTTTTCATCAGTCCT
TTGAACACAGAAAAAATGTTAAGGCCACTTAAGAGGCAAACATCTTACAGAGTTCATT
[G,T]
ATATTCAAAGTCACCTACAGGCTACATCTTGGGTTTCAGGAAGGGGCGGTGTACATAGTAA
GGACATACGCCTTCTGGGAGCCTTAAACAAACAAAAAATGTAGGTAACCTCTACATTT
TTCTTTTGTGGAAAAACACAGTTACTCCAGCTTCTCTGGCTTTTGTCTTCTTTTATA
CCAACAAAAAAGGGCTATCTCTCAACCCCTCTGTTCTTCTTCTCTCCAGGGTATTGA
TTCATAACATTTGGGTTTTCTTCTCTACTTCACTCATCTCTGCTTGTGAAGGTATGTA

GAGTATGCTTGCATGAGTGGAAACCAATCATAAACAACATTCAACTTCATGAGCAGATAT
GAAAGCATTTTTCAGCATATCTAGCAATACATAACTCTTTGTGCAAGCAGAGTGGCCCTAC
ACAAGACAGTTTCAATATATTTAAAGAAGCTCTTACATTTCATCAGTCTTTTGAACAC
AGAAAAAAATGTTAAGGCCCATTAAGAGGCAAAACACTCTTACAGAGTTCATTGATATTC
AAGTCACCTACAGGCTACATCTTGGGTTCAGGAAGGGGCGGTGTACATAGTAAGGACATA
[A,C]
GCCTTCTGGGAGCCTTAAACAACAACAAAAAAATGTAGTAACTCCTACATTTTTCTTTTG
TGCAAAAAACACAGTTACTCCAGCTTCCTTGGCTTTTGTCTCTTTTTTATACCAACAAA
ATAAGGCTATCTCTCAACCTCTGTGTTCTTCACTCTTCTCCGAGGTATTGATTTCATAAC
ATTGGGTTTTTCTTCTCTACTTCACTCATCTCTTGCCTGTGAAGGTATGAAGGCTTCT
TGTGTTCAACTCTTTTCTCAACCGCCCCCTCACATAATGCAATAACAAAGATTGTGA

ATCTAGCAATACTATAACTCTTTGTGCAAGCAGAGTGGCCTACACAAGACAGTTTCAATA
TATTTTAAAGAAAGCGCTTCATACCTTCATCAGCTTTGAACACAGAAAAAATGTTAAGG
CCCAATTAAAGAGGCAAAACATCTTACAGAGTTGCTATGATATTCAAAGTACCTCAGGCTA
CATCTTGGGTTCAGGAAGGGGCGGTGACATAGTAAGGACATACGCCCTTCTGGGAGCCTT
AAACAACAACAAAAAATGTAGGTAACCTCCTACATTTTCTTTGTGGAAAAACACAGTT
[A, G]

FIGURE 3JJJ



Docket No.: CL000891
Serial No.: 09/804,474
Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

- CTCCAGCTTCCTTGGCTTTTGTCTCTTTTATACCAACAAAATAAGGGCTATCCTCAA
CCCTCTGTTCTTCATTCTCTCCAGGGTATTGATTTCATAACATTGGGTTTTCTTCTC
TACTTCACTCATCTCTTGCCTGTGAAGGTATGTAAGGCTTCTTTGTTCCAACTCTTTCC
TCCACCCGCCCCCTCACATAAATGCATAACAAAGATTGTGATTTAATTTAAGTTTCTT
TCTACTTTTAACATATTTGCAACATCAATAGAAGCTAAAATGGGAAAAGGAAATGTTT
- 117230 AATAACTGTGCTGCTAAGATAGGCATTGTGATATGGTGTCTAAACCTGCAAGTAAAG
GAAAAGAGTATGGAATCTGTGTGTCTTTTCTAAGGGCTTTTCCCAGAGTAGCTTGCAAG
TCTGGCTTCTAGGGTGTCTGGCTATAGCCAGAACCCTAGATTCAACCAGATTACCTTC
AGAATTAATAATCAGAGACTCAAATTCATAGACTAAATGAAGTCAGGCTGCTAGAGGA
TGTCTGCTGACTTGGACATATGCAGAAAGACATGGATCCTTGAGAAAACATTGTTTCCAA
[A, C]
AGTGGCCACCAGCACTAGAGGAAGGACAGCACCACGGACAGCTCCCAGACATTTTAGGAT
TGCTTCTGTGTTTGGTGCCTGAACTAGCAAAAACAGCGAACTCAGGAAAGTCTCCACA
CACTCTCATACCATCTTCATGCAGTCCAATAAGAAAATCTTACATAAAATATAAGGCT
GTCTGCTTGGTAATTTAAACCTTGGCTTATAGTCTTTTCAGTGAATTTCTTTCTTCCA
AACTCGAGAGTTGGAGTCTCAGACTGCCCTTGCTTCACCAATTTCCCAGCTAGAGACAA
- 118908 CCCATTGTAACTGAAACAAATAGTGTGACCATTGTATGCTAGGAATATGTTAGGA
AACATAATATAGAATGTGAAATAAGTGGACTAGAAAGTCTGAGATGTATTATCATTATT
GTTTAACTGTGTTTTTAAAGCAAAAATATTAACCTCACTACTACAGGGCAAGATATATT
AACATCAATTATTATTATTCATTATTGTTATTCTAAATAGCCAATTTCAAAAGTCACAA
CCAGGCCAGGCAGTGAGGACTCAGCCTGTAATCTCAGCACTTTGAGAGGCCGAGATGG
[A, G]
AGGGTCACTTATACCTAGGAATTTGAGACCAGCCTGGGCAACATAGGGAGACTCCATCTC
TATAAAAATAAAACAAAATAAAAATCAGCTCAGTGTGGTTGTACATGCTGTGGTCCCA
GCTACTCAGGAGGCTGAGGTGGGAGGATGGCTTGAGCCCAGGAGGTTGAGGTTGCAATGA
GCCATGATTGCACCACCTGCACCTCAGCCTGGGTGACAAAGTGAGACCTGTCTCAAAACAA
AACAAAACAAAAGATTACAACCAAAAACAAAGGGAATAGAAGGATTGCCTCAAAAGAG
- 120430 CCCCAGGCCCCAGAGCCAGAGCAAAAAGACAGCCAGGAAGAGAGGTTTGCTGCTGCTGC
TGCTGCTGCTACCCCACTTTTCTCATCACCTGCTTTAGATCTTTCTAGCTCCCCCTCTGA
TGACCTGACTGTGCCCTCAAGACAATAAACCGAATGTAGGCCACATCATCTACCTGTCT
CCTTTACAAAGGAGGGGACTGAGGTTGAGAAATAAGAGATGATTTACCCAGCTTACAG
ATTTTCTTCATGGCAAGCTGGAATGAGAACCACCAAGTGTCTGACTCCTGTTCTTTCAA
[C, A]
CCCAGCTTCTACCGGTTATGCCAAAACATGACAGAAGTTGCCGTTGGCAAGGCACAGGCA
TGCTCTCAGCATACCTCCCTCCAGGGCTGCTGAGTGGGCAACTCTGCCACATTTCTCTG
GCAAGGACAATCAAGGCCCATCTGCTTTTCCCATGAGATGTTTGGAGGAGGCACCTGG
CTCTGCAGTATATCTCGTGATCTGGAATGACAGCCATCCCTCAGGGGACAGATAATGAC
CAGAACCACAATGGTTATTGACAGCTCAGGTGAGAAATTTGAGAGGAGCCCTGCTGGC
- 120830 CAACTCTGCCCACATTTCTGGCAAGGACAATCAAGGCCCATCTGCTTTTCCCATGAG
ATGTTTGGAGGAGGGCACTGGCTCTGCAGTATATCTCGTGATCTGGAATGACAGCCATC
CTCAGGGGACAGATAATGACCAGAACCACAATGGTTATTGACAGCTCAGGTGAGAAAA
TTTGAAGGAGCCCTGCTGGCATCCAGTGAAGAGTGGCCACACCGAAGTATTCACTTC
TCTCCTTAGACAACAAATGCAGCCTGTGCATTCTCTTTCTTTTAAATATATAC
[A, T]
TTAAGTTCTGGGGTACATGTGCAGAACATAGAGTTTGTACATAGGTATACAGTGCCA
TGGCGGTTTGTGACCCATCAACCGTCATCTACATTAGGTATTTCTCCTAATGCTATC
CCTCCCCATCCCTCACCCTGACAGGCTCCAGTGTGTGATGTTCTCTCTCCCTGTGTCCA
TGTGTTCTCATTTGTTCAACTCCCACTTATGAGTGAGAACATGCAGTGTGTTGTTTCTGT
TCTGTGTGTTAGTTTGCTGAGAAATGATGGTTTGCATCTCTCTTTCTTCTGCTCCACTGTC
- 121926 TTGGTCTCAAAGATTCACTCACAGCTGTTGTTTTCTGTGGCATTGGCACCTCTGTCCCAG
GTGAGAGTGAGAGGTGCTTGAATTTGCAAAGAGGATTTTACCTGGTTCAAATGACCCCTG
GACTCCATCTCATTTATCTCCACACCATCTCAGATCTGAACCTTAACAGAGCCTCTGCCCT
TAAAGTGACAAAAAGTCAATCAAAGAGATGAATAATGACATTAGTAATGACAGCTAATAT
TTCTTGAGCACTTTCAATGTGACAGACCATGTGTGTTGAGCAATTTACACATTTACAT
[T, C]
TTCCCCCTGTAATGTTTCCCAAAGCCCTATTAATAGGGTAAGTTATTATCCCCACTTCA
CAGACAAAGAACTGAGGCCACAGAGGTTAAGCTACATGCCCAAGTAAGTGGTCCAATT
TCTTAACCTCCACATTATGTGAGTAGACCACAAACAGTGAATTAAGAATGTAGATAT
TGTTCTCCTTCTATTACCTCTGGCGATCTCTGAGAGGTTAAAGATTAGCCAGCTCAAAG
ATATCAAAGGAGAAATGCCACATACATCTTGGCCTCCTCTACTTGGAGGACACTGTG
- 122102 CCCTTAAAGTGACAAAAAGTCAATCAAAGAGATGAATAATGACATTAGTAATGACAGCTA

FIGURE 3KKK



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Inventors: MERKULOV, Gennady V.
Title: ISOLATED HUMAN TRANSPORTER...

- ATATTTCTTGAGCACTTTCAATGTGACAGACACCATGTGTGTTTCAGCAATTTACACATTT
ACATTTTCCCCCTGTAATGTTTCCCAAAGCCCTATTAAATAGGGTAAGTTATTATCCCA
CTTCACAGACAAAGAACTGAGGCCACAGAGGTTAAGCTACATGCCCAAGTAAGTGGTC
CAATTTCTTAACCTCCACATTATGTGAGTAGACCACAAACAGTGAAATTAAAAGAATGTA
[G, C]
ATATTGTTCTCCTTCTATTTACCTCTGGCGATCTCTGAGAGGTTAAAGATTAGCCAGCTC
AAAGATATCAAAGGAGAAATGCCACATACATTCTTGGCTCCTCTACTTGAAGGACAC
TGTGAGTACAAAGTATCTCCTAGCAGGACAGCCAAAGGAAGTCCACAGCTTTTATCTTT
TTATAGGATGAATTACATACTCTTCTTTTCTTAGGAACACTCAGAGACAAACAGAAAG
GAGCGGACATTCTTTACTCATTTGAACAAATATTTACTGAGCACCTATTATGCCTGTTC
- 122950 GGGGCCCTCTGAACTCTGAACTTCTGCCAGGGAGCTGGCATCCCAGTTGCCCCAGAAAGAA
ACAGAGCACATCTCCTGTCAGGGAAGTTAGGCTGAATCTCATCAGACAGGACTTTCTGG
CTGGGCCAAGGAAATCTTTCTGTACCAAGCAACATATCCTTCAAGAGAGTAGCTGAA
TTCACATCAAATTTCTAGGAAACCTCTTTCCAAACCCAGCGCAGGCCAGCGGTATTAT
TTGTCCATTAGTATGAAGAGATTTAGCTATCGTGGAATGCATCAGAAGGTGGAAT
[T, C]
AGATGGATGATCCAGGAAGGCTGTGGATGAGATGCCCTGTGATCTCTGTTCTCCAAGC
CTTGGGGGACCTGAACTATCAGAGGGGAGGGAGGAAATATGGGGGAAAGCATAGAGGTGG
GAAGAAATATCAGAGGATCAGAAGCAAAAAACAACAATAACAACAGAAACAAAAACAAC
AAACAACAAAAACAAGGCCATAGGCAAGAAAGGTAAGAGGTTTTCTCTGGGAGATC
TAAAAAATGGCAATAATGAGGTAAGCCAGGCAGATACCTTTGGGCATCTCCAAGTCCT
- 123366 GGTGGGAAGAAATATCAGAGGATCAGAAGCAAAAAACAACAATAACAACAGAAACAAAA
CAAACAACAAACAAAAACAAGGCCATAGGCAAGAAAGGTAAGAGGTTTTCTCTGGG
AGATCTAAAAAATGGCAATAATGAGGTAAGCCAGGCAGATACCTTTGGGCATCTCCAA
GTCCTTGCAATTTGGCCAAGACAACAGCTAACACATTTGAGGCTTTAAGAAGGTACCT
GTGATCCACTCATCTGATTTAGTGGCTTTGGCTGAAGCTCTTTGGATATAGTTGAAGGTA
[C, T]
GGAAAGGCTCCTTACATGAGGACTTTAGGGTCAAGTCTCTTGCTAACATCCTATGTGACC
TTGGGTAAATCTTTGACCTTATTTTCTTACCTGTAAAATAAAGAATTGGGCTAGAT
GTCTCTGACAGTCTCCTGTATCTACAATCTGTGCCAAGATCAAAGTCAAACACCTG
CAAGGCCCTGTGATACATATATAAACCAAAAGACAGAGCCCCGTCTCTCTGAGTCCAC
AGTTACCCCTGCATGTCCCCATCATGGTTCCCCAACATGTCTCTGTCCCCAAATCCAG
- 124947 GGCCCTGGCAATTAAGTGAAGGGCAAGTCTTAATCAATCAAACAATGGAGGAATCACC
GACTTTACACAGTATTTAATTGAATACAAACAAGCAACAGCAACAAATCCACCTCCACCC
CATCTCCCCCTCATATCCCTGACCCAAAGCAAGGTCAGAGCCTTTGCGCTCCTTCTATT
CCATCTTTTGATTTATTCTTTGCTCTCATTTCTTTGGAAGCAGGGTTCTCTCTCTG
CCAATTCATATGTCCCTATTATCTCACTCAGCTGACAAGACGTGAAATGAGTCACATT
[C, T]
ATGTGGCTGGGTGGGTCTTTTTCATTGTAATCATTTATTGTGGTTGCTTTCTGTTTG
CCGTTAGGTTTTGCTTATTATTGTTTGTCTTTTCTGAAAGTGAAGTGAAGGTAAGG
GCCACAAAGGAATTCAGGTCCGAGCCAACAGAGAGAAACATGAATTTTAGACACATGC
TCTCCTGCCACCTCTTTGGCTCCATCAAGATCCAGTTCCCCATCTCACTGTTTTCTCTGAG
TTCTTGGGAGGAGTGATGGTGTGGGTAGAAATAAGCTCACTACCCACGCAGGGTACT
- 125010 TTTACACAGTATTTAATTGAATACAAACAAGCAACAGCAACAAATCCACCTCCACCCAT
CTCCCCCTCATATCCCTGACCCAAAGCAAGGTCAGAGCCTTTGCGCTCCTTCTATTCCA
TCTTTTGATTATCTTTGCTCTCATTTCTTTGGAAGCAGGGTTCTCTCTCTGCCCA
ATTCCATATGTCCCTATTATCTCACTCAGCTGACAAGACGTGAAATGAGTCACATTAT
GTGGCTGGGTGGGTCTTTTTCATTGTAATCATTTATTGTGGTTGCTTTCTGTTTGCC
[A, G]
TTAGGTTTTGCTTATTATTTGTTTGTCTTTTCTGAAGTGAAGTGAAGGTAAGG
ACAAAGGAATTCAGGTCCGAGCCAACAGAGAGAAACATGAATTTTAGACACATGCTCT
CCTGCCACCTCTTTGGCTCCATCAAGATCCAGTTCCCCATCTCACTGTTTTCTCTGAGTTC
TTGGGAGGAGTGATGGTGTGGGTAGAAATAAGCTCACTACCCACGCAGGGTACTAAA
GATCTTACAGGAGCTTCACTGGAGCAGGAGGAGCTTTTATGCTTATGTTGAATCAAGT
- 126043 AAAGCATTTTTTACAAGATAGGAAGTGAATTCCTCATTTCTCCCATGTTCTGCTGTGTT
TTAAACTTCATGAAGCTATTTTCCAGCCTATGGGGTAGTCTTGCTCCAGTAAGAGGAA
TCTTAGTTGTCATAATCCCTTGGAGCCTGGGTTTTGGAGAAAGAGATCTCCGTGCCCTA
CAGACTTTTCTCAACGAATGTGGGAAGGACCTGGCTTTAAACACGCACACAAACACAC
AAATAACAGACATAAGATGTCATACGAAACTGCCACGGATCTTTAGGCTTTCTGCAT
[T, C]
GACATAAATACATTTTCTAAGGGGGGGGGGAAGAAATAAAAACACCTGTTAATTTTA
AACATTTTTTAAAGAAAAAATAATTAAAAAAGAAACAGTGCTCATGTCTATAAGCTATG

FIGURE 3LLL



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TTGACAGTTGCCAGTGGAAATGTTGGGTTGGTTCAAAAAAAAAATAAAAGCTATACTATA
TCTCTCTACATACAGCTTGCTTCTACCTGTGTTTCTTCAGTGAAGGTCCAGGGGGCCAC
TGTGGGCTTCTGTGAGGAGACGTGACTCAGGTGAAGGTGTCACCTCCTCTCACACTCAG

126064 AACTGGAATTCCTCATTTCTCCCATGTTCTGCTTGTCTTAACTTCATGAAGCTATTT
TTCCAGCCTATGGGGTAGTTCTTGCTCCAGTAAGAGGAATCTTAGTTGTCATAATCCCTT
GGAGCCTGGGTTTTTGGAGAAAGAGATCTCCGTGCCCTACAGACCTTTTCTCAACGAATG
TGGGAAGGACCTGGCTTTAAACACGCACACAAACACAAATAAACAGACATAAGATGT
CATCACGAAACTGCCCACGGATCTTTAGGCTTTCTGCATTGACATAAATACATTTTCTAA
[-, G]
GGGGGGGGGAAGAAATTAACAAACACCTGTTAATTTTAAACACATTTTTTAAGAAAAA
ATAATTAAGAAAGAACAGTGCTCATGTCATAAGCTATGTTGACAGTTGCCAGTGGAAAT
GTTGGGTTGGTTCAAAAAAAAAATAAAAGCTATACTATATCTCTACATACAGCTTGCT
TCTACCTGTGTTTCTTCAGTGAAGGTCCAGGGGGCCACTGTGGGCTTCTTGTGAGGAGA
CGTGACTCAGGTGAAGGTGTCACCTCCTCTCACACTCAGGTGCCAATGTGTCAGACCCAG

126283 AAATAACAGACATAAGATGTCATCACGAAACTGCCCACGGATCTTTAGGCTTTCTGCAT
TGACATAAATACATTTTCTAAGGGGGGGGGGAAGAAATTAACAAACACCTGTTAATTTT
AAACACATTTTTTAAGAAAAAATAATTAAGAAAGAACAGTGCTCATGTCATAAGCTAT
GTTGACAGTTGCCAGTGGAAATGTTGGGTTGGTTCAAAAAAAAAATAAAAGCTATACTAT
ATCTCTCTACATACAGCTTGCTTCTACCTGTGTTTCTTCAGTGAAGGTCCAGGGGGCCA
[C, G]
TGTGGGCTTCTTGTGAGGAGACGTGACTCAGGTGAAGGTGTCACCTCCTCTCACACTCAG
GTGCCAATGTGTCAGACCCAGTATATTCTAAGCAAAATACCTTCAGGAAAATGCCACTTG
TCAAAACCTGGACTTTGCGAAGTTGGAAGATGTAAGTAGTAGTAAAGCTGTGGTAATTA
TGGAGGAAGGAGGTTTCTGTATCAGAAAGGCATTGGCCGTGACAGACTC

Chromosome map:
Chromosome 14

FIGURE 3MMM